SUC-SESSION

- News
- ZX Touch - The Handheld Spectrum
- Visit to the »Spectrum Load Museum«
- »Crash 2023 Live «
- »ZXED Spectrum Toolkit«
- The Atari XL/XE-Computer Story
- And much more ...

ISSUE

237.

OF YOUR MAGAZINE

YOUR MAGAZINE FOR THE SINCLAIR ZX SPECTRUM

EDITORIAL

Dear Spectrum users,

Today I once again have the honour of writing the foreword. For many years I was the editor-in-chief of the SUC session and loved to write the foreword, often as a conclusion to successful work. Many issues were also produced with the Spectrum, using the DTP program, which worked really well. In some places I found it better than other solutions nowadays on the PC, but it had one serious disadvantage: the memory was usually only sufficient for 1 page. So the foreword was the end of endless nights of noise from the dot matrix printer printing page after page. The magazine was not produced all at once on the screen, but page by page. The whole thing was still monthly back then. It's a mystery to me how I could have any other life besides that; somehow the days were longer back then.

Today it's different, not only do I seem to have less time, but the magazine hasn't even really started yet and I write the foreword, have given all the articles to Joachim and he then puts the magazine together with his articles. But there's also a problem: at the moment we don't have any reviews of software in this magazine. That's a great pity, I've been calling for some time for someone to be found to do game reviews. After all, we publish more than 100 games a year. Precisely because Joachim and I also do a lot of other things for the club, none of us has the time to review and report on the software that is released. Ellvis did this for a while, but we haven't heard much from him since he fell seriously ill and we urgently need a new reviewer.

At least I would like to thank Miron, who has reliably taken over the adventure corner. But here is my appeal again: The game reviews are simply missing from our magazine, as is the demo corner. We should report on demos at least once a year, some game tests belong in every magazine. We'll see if I can manage something and Joachim can send it on, but otherwise we'll have to do without game reviews this time.

If there are no game reviews, it will still be a great issue with some interesting articles thanks to some hard-working writers. Keep up the good work.

I'm getting ready for my trip to Helmarshausen for the ZX Team Meeting. There I will meet 40-50 users, most of them Spectrum users by now. So we have taken over the former ZX81 meeting. Of course I will also report on it.

Joachim can't come along, he has to do the SUC session. I'm not taking the Ferrari either, I've got a lot of luggage with me.

See you next time

Cleebronn, 28th April 2023

Thomas

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IMPRINT

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HOW TO SUBSCRIBE TO THE SUC SESSION

In general, the magazine is the main service of the SPECTRUM-USER-CLUB. The magazine is made by Spectrum us-ers and for Spectrum users. Everyone can participate. By participating you can earn the magazine.

The magazine is offered in subscriptions â three issues. Usually three issues are published per year.

Subscription 1:

Three issues as a printed version

Prices:

Germany:	22.00 €
EU-wide:	26.00 €
Worldwide:	29,00 €

Subscription 2:

Three issues as PDF

Price worldwide: 4,50 €

We are planning an exclusive access to reader-only content, software and older (backup) PDF issues of the SUC Session for download. Until the website for this is up and running, this content will be sent by email on request.

The club has the following bank details,

(only use this data, not the data of the Sintech company!):

IBAN: DE93630500000000719102,

BIC: SOLADES1ULM,

account holder: Mirko Seidel

PAYPAL-payment is also possible:

https://www.paypal.me/Micro256

or via our website:

www.speccy-scene.de

Of course you can also use other pay-ment methods like money by registered mail, cheque or other. It would also be important to send us an e-mail or call us for the address details.

Instead of paying in Euros, you can also pay in SUC points, 1 point is worth 1 Euro. There are the following points:

1) Submit article **2 points**, activated on Publication
2) Translate article German-English or English-German **1 point**
3) Enquiries and small letters to the editor do not get any points for the time being, but whoever sends a letter to the editor that can be used as a real article, will of course also get **1 point** for it.

If you are interested in helping out, please contact us. We distribute transla-tion work and try to keep things in order so that two authors do not work on the same topic.

If you already have a subscription, we will contact you when it expires. In this case please respond immediately so that we can plan the quantities for the next issue in good time.

READERS' LETTERS

Dear readers,
Once again we have received feedback from all over the world. We appreciate every message, even if it is short. This magazine is the publication of the SPECTRUM-USER-CLUB and by subscribing to the SUC-SESSION you become a member of this club. Of course, a club is there to help its members, so please feel free to ask. Of course, the questioner does not always have to wait for an answer in the magazine. Just send an e-mail to:
thomas.eberle@sintech-shop.de.
I will reply quickly and read all the others, then answer the question in the next issue if the question is of general interest.
Of course, you can always ask me not to publish anything or to cut personal details. If I can't answer the question, the question will be passed on to all readers in this way and an answer will be found. At least that has always worked so far.

To begin with, a word of praise from Italy from *Francesco Borella* from hopefully sunny Vigonza:
Many thanks for your message (the last issue) and good recovery to Joachim. I would have loved to come to Crash Live, but unfortunately it was difficult.

Hello Franceso,
Thank you very much. Joachim is doing well again and I've heard that he's already knocked one or two people over in karate (or was that judo?). Anyway, he's healthy at the moment, otherwise it would have been difficult with this issue.
Too bad you weren't at Crash Live. At least we can present you with a little travel report in this issue.
Best regards, Thomas
It was Karate, dear Thomas, and I only do knockovers when there's absolutely no other way... But that's another story. Many thanks for your wishes, dear Francesco. My wrist is feeling better again.

Our diligent writer *Harald Lack* sends us greetings from Raubling in Bavaria:
Dear Thomas and Joachim,
I wish you a Merry Christmas and a Happy New Year into a healthy and peaceful 2024. Thank you very much for your tireless commitment to the Spectrum - I think our club magazine is a good message in this crazy world. Stay with us.
Best regards, Harald

We can pass our thanks back to you. You are no less a part of the SPECTRUM USER CLUB and the magazine than we are. The magazine would be a lot poorer without you. Spectrum-wise, times could hardly be better than they are now, even in your favorite genre "Adventures" there are a lot of great programs coming out again. In this respect, it doesn't look like you'll ever run out of material to write about. We can't wait to see what you come up with.
Best regards, Joachim and Thomas

On the Internet I came across the blog of *Andreas Steinbacher*. Without further ado, I wrote to him to ask if we could publish an article from his blog. Here is his reply:
Hello Thomas,
I'm pleased that you liked my report on my visit to the LOAD ZX SPECTRUM MUSEUM in Cantanhede. I would be delighted if you would like to use the article for your Spectrum magazine SUC-SESSION. I would also be delighted if you would link the article to my site. And maybe I can also get a copy of the Spectrum magazine sent to me with my article? I would then also be happy to report on your magazine in my blog 😀
Greetings, Andreas

Hello Andreas,
Your report is in this issue and is very interesting. I'm almost packing my suitcase. Collaboration is rewarded, so of course you will receive a magazine and even more if we are allowed to publish articles from you in the future. I hope that we can win you over as a reader and author for our magazine. The link to your computer museum can be found in the foreword to your report.
Greetings, Thomas & Joachim

***Jess Vass* from Eastleigh, United Kingdom has a product question:**
Hello,
I have recently purchased a ZX-VGA-JOY. It works perfectly with my Spectrum 128K. But I need something else.

1. *does the ZX-EXT port doubler work to run a DivMMC and a ZX-VGA together on my Spectrum 128K? Does it also work on the Spectrum +2A?*
2. *is there a modern method to save programs written in 128K Basic and +3 Basic?*

The DivMMC with ESXDos works with my 48K SPECTRUM and also on the 128K computers in the 48K mode. But I also want to be able to save programs written in +3 Basic and 128K Basic. I have looked at the double drive from Sintech, but I think it needs another interface?
I would love to hear your suggestions.
Best wishes,
Jeff Vass

Hi Jeff,
first question: yes, ZX-EXT can work with both DivMMC and ZX-VGA. It works on both the SPECTRUM 128K and the SPECTRUM +2A.
Now the second question is a bit more complicated. Most interfaces for mass storage devices page in their own ROM and hide the SPECTRUM ROM. Therefore it does not work in +3 Basic, there are hardly any solutions, e.g:
- There was once a solution called +3e. It worked with +3 and +3 Basic and used an IDE interface. However, this solution is no longer available.
- The +D Disc interface sold by Sintech also works on +2A and supports +3 Basic. You can buy it and connect it to a drive (or buy our dual drive) and save to 3.5 inch disk. That will work.
However, my personal opinion on this is that there are simply reasons why programmers have decided not to support +3 Basic. So if you write programs in +3 Basic, you will run into this incompatibility problem with "modern" accessories like DivMMC. It is not too complicated to simply rewrite the program and use only the normal SPECTRUM Basic, as almost all other programmers do. This is the way of modern SPECTRUM COMPUTING (if there is anything modern in SPECTRUM COMPUTING at all), and you should not go your own way and buy expensive add-ons with no additional benefit. In the end, the +3 Basic offers no real advantage, but incompatibility. Even +3 Basic is different from 128K-Basic and therefore even the 128K machines are not compatible with your code, while SPECTRUM-Basic runs on all machines. I understand that you probably have a program that is almost ready, but believe me, you can reprogram it in SPECTRUM-Basic and this will be a program that runs on all computers and works with modern mass storage interfaces. I think this would be the best and smartest choice for your request.
Best regards, Thomas

Hello Jeff,
I would also like to add my two cents to Thomas' answer. I have an 8-BIT IDE INTERFACE installed or plugged into both my SPECTRUM +3 and my SPECTRUM +2A. The +3 has an internal 8-BIT IDE, I plug the external 8-IDE-INTERFACE into the +2A. It works well and reliably on both computers. However, the 8-BIT-IDE-INTERFACE requires the modified ROMS of the +3e system. You can find these on the WORLD OF SPECTRUM website at
https://worldofspectrum.org/zxplus3e/p3eroms.html
and can download them there as a ZIP file. However, you will then need someone to burn the file onto corresponding EPROMS or compatible EEPROMS.
Both the external 8-bit IDE and various versions of the internal 8-bit IDE are offered on eBay at irregular intervals. The EPROMS can also be bought there. It is always worth looking on eBay.
If you are able to produce the boards yourself, you can also download them from WORLD OF SPECTRUM. The data, i.e. schematic, images, Gerber files and KiCad files are available at
https://worldofspectrum.org/zxplus3e/interface.html
to find.
Greetings, Joachim

Letters and questions as always to Thomas Eberle.
thomas.eberle@sintech-shop.de

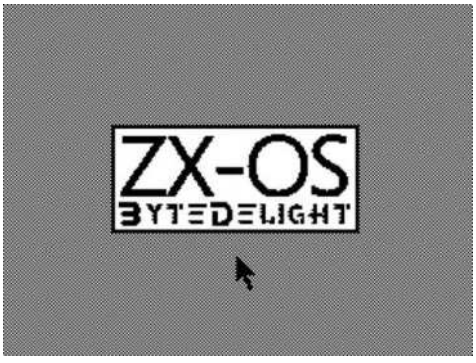
NEWS IN SHORT

»HEAD OVER HEELS« RELEASED

Three years ago, when the second production of the SPECTRUM NEXT was decided three years ago and enough investors were found via crowdfunding, a new version of Head over Heels was also promised. The production of the SPECTRUM NEXT dragged on and so did the game. In the fall of 2023, the investors finally got their new devices, but the game was not yet finished, although preview versions could be seen, but the game was not finally released until March of this year. Using the graphics from the Amiga version and with some enhancements, the best Head over Heels version has probably been created. Buyers of the second batch can download it for free, everyone else can either order the digital version for £9.99 or even the beautifully packaged version for £19.99. Available at:

https://www.rustypixels.uk/shop/

GRAPHICAL USER INTERFACE FOR THE SPECTRUM



BEN VERSTEEG is working on ZX-OS, a graphical user interface similar to Windows. It should support every Spectrum with DIVMMC and offer other enhancements in addition to pure operation. It will support long filenames, Real Time clock and software-controlled expansion ports. We are excited…

SPECTRUM TOUCH UPDATE 1.10

The SPECTRUM TOUCH was only released in November, but the first update was already available in February. The new firmware can also be updated via Wifi. Improvements have been made to the sound and Z80 emulator files can now also be played. But the biggest change came unexpectedly: You can now set up your own dashboard, with your favorite games, with cover picture and description. If you don't have it yet, update via Wifi or download from

https://zx-touch.com/

SYMBOS FOR SPECTRUM NEXT

Another graphical user interface, this time for the Spectrum Next. However, this is not a new project such as the "NEXT LAUNCHER". SYMBOS has been around since 2005 for AMSTRAD / SCHNEIDER CPC. Later versions for MSX, PCW and even the ENTERPRISE were added, the Spectrum, which was also based on Z80, was missing, probably because of the non-standardized file system. With the Spectrum Next, however, there was finally a large user base that used the same system and so a first pre-release version appeared in December 2023. Interested Next users just have a look, we will be happy to publish a report:

http://www.symbos.de/download.htm

MORE CLASSICS FOR SPECTRUM NEXT

Many long-planned projects are currently coming to an end. The classic »WAY OF THE EXPLODING FIST« was already promised to investors during the first crowdfunding, and at the end of 2023 the time had finally come and WASP published the karate game. Another platform game for the Next, »NIGHT KNIGHT«, also came from the same company but from a different programming team at the end of last year. »WAY OF EXPLODING FIST« is free for buyers of the first Next, while »NIGHT KNIGHT« is free for buyers of the second production. Both games can also be purchased, both digitally and in attractive packaging:

https://wearespectrumprogrammers.com/shop/

TERMIN FÜR DAS ZX TEAM TREFFEN 2025

The 2024 meeting is barely over when the premises for 2025 have already been booked. You won't find an article about the meeting in this issue yet, but it is certainly the largest Sinclair user meeting in the German-speaking world with a flea market, workshops, lectures and generally lots to see, play and marvel at. The next date is March 07-09, 2025, registration in the forum:

https://forum.tlienhard.com/phpBB3/viewtopic.php?t=4590

GAME OF THE YEAR

The »GOTY« competition has been held for years, but has become increasingly popular in recent years. Most recently, the Oscar-like ceremony was held at the »LOAD ZX MUSEUM« in Canthanede, Portugal. The whole thing was streamed live and is still available on YouTube. If you speak Portuguese well or don't care if you don't understand anything, you can watch it:

https://www.youtube.com/watch?v=X4JxXAfgbuk

Incidentally, the winner was »Seraphima« the game from ZOSYA, which, as always, is graphically stunning. An outstanding second place went to »WYCHEWALD«, a downright epic role-playing game from the relatively new publisher »RED ZEBRA«. In the end, we are the winners who can still enjoy these games in the 42nd Spectrum year. An overview of all categories and winners here:

https://planetasinclair.blogspot.com/2024/02/vencedores-goty-2023.html

NASA IN IN FINANCIAL DIFFICULTIES

NASA announcement from April 1, 2024:

Due to the current very tight financial situation at NASA (National Aeronautics and Space Administration), several spectacular decisions have been made. Projects such as the current ARES space program have been postponed indefinitely in favour of a new edition of the world's most powerful rocket to date, the SATURN 5. Following the rediscovery of the construction plans that were thought to have been lost, a new edition of this rocket is planned. In the course of this decision, the NASA administration came to the conclusion that proven technology should also be used to control the rocket. Their choice fell on the SINCLAIR ZX SPECTRUM 48, in this case again on version Issue 6. In the course of this, the ZX SPECTRUM 48 ISSUE 6 was given the new designation »ZX SPECTRUM SPACE«. The control system of the new edition of the Saturn 5 with the name »SATURN 5 NEO ZX« will probably be programmed in Spectrum-Basic, or at least the user interface for it. The decisive factor was that the astronauts should be able to edit the

controls independently during the space flight and correct any errors in the programming themselves, should any occur contrary to expectations.

In addition to the United States lettering, the launch vehicle also features the SINCLAIR logo, which can be seen on the outer skin of the first stage.

However, it is rumored that a monument in honor of SIR CLIVE SINCLAIR will be erected at the landing site of the next expedition on the moon, perhaps for obvious reasons.

We are very excited!

26TH SPECTRUMANIA 2024 IN WITTENBERG

Hello everyone!

I would like to invite you to the 26TH SPECTRUMANIA in 06886 Lutherstadt Wittenberg.

The date is Saturday, September 7th and Sunday, September 8th, 2024 at the Volkshochschule. The guesthouse »ALABAMA« is also already booked.

One five-bed room and four double rooms have been reserved in the guesthouse, one of which can be extended by one bed.

Our conference venue is again the VHS in Falkstr. 83 / corner Zimmermannstraße. We will have two adjoining rooms to use. Tables and chairs will be provided by the VHS. The opening hours of the meeting are Saturday 08.30 to 19.00 and Sunday 09.00 to 16.00.

For the physical well-being I will prepare a cold buffet with sandwiches, coffee and drinks.

Please bring a large number of Sinclair and other 8-bit computers as well as extension cables, power strips and a lot of enthusiasm for computing together.

If someone would like to give an interesting presentation (approx. 15 minutes), they are welcome to do so. Just let us know in advance if more than one person would like to do so, so that we can coordinate.

Registrations for participation, especially for overnight reservations, should be made by around July.

I have reserved seats for dinner at the »Mediterraneo« restaurant at Schloßstraße 33 on Friday, September 6th from 6 pm and Saturday, September 7th from 7 pm.

As some participants will be arriving in Wittenberg later, I will collect the room keys on Friday morning. These can then be collected from my apartment in Pratau Marktplatz 4 or from the restaurant. I live in the house with the motorcycle store. My doorbell is at the gate on the right at the corner of the house next to the three letterboxes. I have to come down two floors as there is no door opener, but there is an intercom system (ring the doorbell).

My address for picking up the room keys:

Norbert Opitz
Market place 4
OT Pratau
06888 Lutherstadt Wittenberg
Landline: 03491 - 5052169
Cell phone: 0175 - 2249575
(only during the event)

You can find the schedule for registration at:

https://terminplaner6.dfn.de/p/593c4ac6 ... 8bd-605852

Bye bye,
Norbert

Pension Alabama and VHS Wittenberg

Driveway to the VHS Wittenberg

»CLUB-MAGAZIN« PROJECT

BY JOACHIM GEUPEL

The project is largely completed. There are only a few magazines missing, but I don't know if they even exist. I would like to thank Franz Large, who made an extraordinary effort to meet my requirements in terms of scanning quality. Above all, he contributed the missing first magazines, which I thought were no longer available. Norbert Opitz also sent me a few of the missing numbers. Many thanks also to Norbert!

I'm sure I've forgotten someone - I apologize for that. To those I forgot, thank you too!

All the magazines that followed confirmed that Rolf Knorre put little effort into the design of the SUCWs. Even the first SUCWs were characterized by poor copies, slanted lines and truncated listings. In fact, there are lines missing from the listings that can be found in the first 14 issues, so the programs couldn't run at all. Parts on the right and left were also simply cut off. Given what I have edited, I seem to have no choice but to agree with the verdict I found in Demmi's diary, which says that said editor viewed the clubs only as a business model. What was really good were the club tapes that came out every two months - at least while I was there.

The following issues are still missing:

SUCW 118 bzw. SUC 118 (*)	SUCW 119 bzw. SUC 119 (*)	SUCW 120 bzw. SUC 120 (*)
SUC 211	SUC 212,	SUC 213
SUC 214	SUC 215	SUC 216
SUC 217	SUC 218	

However, when it comes to the last eight magazines mentioned, I don't know whether they even exist.

For the first three magazines listed, I'm not sure whether they are still SUCW or already SUC.

When Thomas painstakingly created the issue by hand, page by page, on the Spectrum, he slipped up with the numbering a few times between issue 180 and 190, but that wasn't a big deal. There are a few of the issues with identical numbering but different publication dates. In my own perfection I have simply labelled them (a) and (b) and appended them to the issue number.

As soon as the magazines are online, you will find out in the SUC SESSION.

Best regards,

Joachim

VISIT TO THE »LOAD ZX SPECTRUM MUSEUM« IN CANTANHEDE

BY ANDREAS STEINBACHER

Foreword by the editors:

We found this article on the internet. Since our own club trip to Portugal never took place, we can now at least read something about what is probably the largest Spectrum museum. Of course, the author agreed to publication in our magazine, for which we would like to thank him. Andreas Steinbacher has even more topics relating to the Spectrum on his blog, take a look:

https://digitalesleben.blog/ueber-mich/

Here is the article:

A MUSEUM JUST ABOUT THE ZX SPECTRUM?

No, SINCLAIR and TIMEX products can be seen in the LOAD ZX SPECTRUM MUSEUM.

On October 27th, 2023 I visited the LOAD ZX SPECTRUM

MUSEUM in CANTANHEDE. The history of SINCLAIR and TIMEX computers in Portugal is documented there. I was very excited about this exhibition. The founder of the museum is called João Diogo Ramos and he is the collector of all the exhibits.

If this museum didn't exist, I would never have heard of this city. Cantanhede has almost 8,000 inhabitants. 34,000 residents live in the Cantanhede district. João teamed up with the city's officials and the museum has become part of the city's tourist destinations.

I got the opportunity to talk to the founder João and he took time for me. He made me aware of the special history of TIMEX PORTUGAL.

The idea of going to Cantanhede was born when my friend Katja and I wanted to prepare our wedding celebration in the Algarve next year. I then asked them to include the LOAD ZX SPECTRUM MUSEUM in Cantanhede in the planning for our trip. On the way there we visited World Heritage sites in Évora, ElVas, Tomar and Coimbra. I can only recommend this to everyone. These places are worth visiting.

I drove directly from Coimbra to Cantanhede. The journey takes just under 20 minutes and then you find yourself in the city of the conquistador who discovered the Amazon region for Portugal: Pedro Teixeira.

A few moments later a park with a few buildings on the right comes into view. The colour pattern of the ZX SPECTRUM stripes decorate the outside wall of one of the buildings. It reads »MUSEU LOAD ZX SPECTRUM« in large letters.

The entrance to the »LOAD ZX Spectrum Museum«

I had arrived, but still needed a parking space. Not that easy to find. And then I was unable to find a working parking ticket machine. When I arrived at the museum, I asked a museum employee what I should do about the parking ticket. He assured me that none of the machines had been working for a long time. He greeted me and invited me to look at the museum.

TIMEX and SINCLAIR ZX SPECTRUM - the museum's top topics

FREE ENTRY TO THE MUSEUM

I was surprised that there was no entry fee. Again a result of the city's marketing efforts. I was happy to accept this goodie. I asked if the founder of the museum would be there today. I was excited to get to know him.

ENTER THE LOAD MUSEUM

The first thing I found was the great sliding door with the ENTER lettering milled into it. Behind it I saw an aisle with all of Sir Clive Sinclair's electric bike products. Of course, the C5 dominated this area with its size and white body. The guest book was also there. Before I even saw anything, I already registered. In fact, later João Diogo Ramos came to the museum and read my guestbook entry. He then spoke to me. But more on that later.

Each exhibit is provided with a QR code. If you read this, you will be directed to an explanatory text on the museum's website. Most texts are available in English.

THE SPECIAL FEATURES OF THE MUSEUM

Each museum has its own theme and its particular form of presentation. I have already gotten to know many computer museums either on site (center for computing history in Cambridge, HNF Paderborn, Binarium, Dortmund, Homecomputermuseum Helmond) or virtually (OCM Oldenburg). Here in Cantanhede the focus is obviously on the ZX SPECTRUM.

But if you look closer, you'll find Sir Clive's complete product range, which he "invented" over forty years. These include amplifiers, digital clocks, mini radios and televisions, calculators and much more.

Calculators were a great success for Sir Clive

And you find out that the history of TIMEX PORTUGAL and its products around the ZX SPECTRUM is celebrated here. The museum has established good relationships with former managers and employees of TIMEX PORTUGAL and can therefore provide very special information from the 80s.

TIMEX-computer »TC2068« in silber snd schwarz

AROUND THE WORLD

In addition to the TIMEX PORTUGAL section, there is also a section that shows where around the world the ZX SPECTRUM has played an important role. The exhibition area

»À volta do mundo (Around the World)« shows the various clones or authorized copies of the Sinclair computers. For example, from Brazil you can see the TK82-C, the TX83, the TK85, the TK90X and the TK95. Only the TK90X and the TK95 Spectrum are clones

ZX-SPECTRUM-clones *all around the world*

The TIMEX SINCLAIR TS2068 comes from the USA in its silver-coloured housing with the flap above the module slot on the right side. Sketches from TIMEX USA for this computer, which show different design studies for the computer, are also interesting. A handwritten note »Too much like TI99-4A« is noticeable.

Finally, the TIMEX computer TC2068 comes from Portugal, which no longer bears the name SINCLAIR.

A LOOK INTO A PORTUGUESE LIVING ROOM FROM THE 80S

Behind a large revolving door you will find an idyllic Portuguese living room from the 80s with the SINCLAIR ZX SPECTRUM.

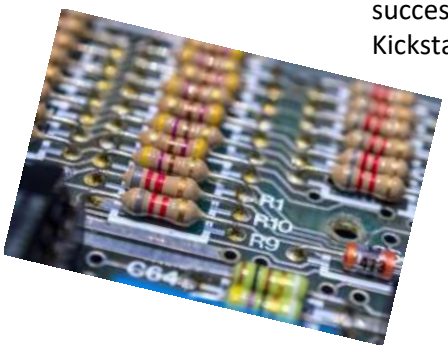
Personally, I missed the orange wallpaper of the time in this setting. All the museums I have visited so far show exactly such a time capsule. Apparently they didn't have these terrible wallpapers in Portugal. But there were probably lace doilies over furniture ☺

Since I had been completely alone in the museum up to this point, I took the opportunity and sat down in the armchair. CHUCKIE EGG quickly loaded from the cassette and I was able to play the game. A very nice experience and a reminder of times long past.

For the sake of completeness, a representative selection of home computers from the 80s is also shown in this museum. The usual suspects from COMMODORE, ATARI, DRAGON, ACORN and ORIC are there. I was particularly happy about a MACINTOSH with the case open. Back then, the entire Mac development team immortalized their signatures inside the case. The museum has highlighted the signatures of Steve Jobs and Woz (Steve Wozniak).

HANDS ON AREA FOR THE PLAYFUL

On the next wall you will find ZX SPECTRUM emulators that you can use. The successful results of crowdsourcing projects can also be admired there. In addition to the ZX-UNO and the N-GO, I was also able to see the ZX SPECTRUM NEXT from the first successfully completed Kickstarter initiative.



The interactive part of the museum for the playful

I found it remarkable that the museum is also the result of the failed INDIGOGO INITIATIVE ZX VEGA+. It was delivered in very small numbers and was evidence of mismanagement and fraud. I also lost my money in this initiative and did not receive any product. I'm all the more excited about the ZX SPECTRUM NEXT from the second Kickstarter initiative, which is scheduled to be delivered to me in November 2023. (Most of the NEXT of the second Crowdfunding have been delivered in the meantime. Red)

The end of the exhibition consists of books, magazines and software packages about the ZX SPECTRUM.

MEETING AND CONVERSATION WITH JOÃO DIOGO RAMOS

When I arrived in the last room, »Sala Multiusos Rosalina Alves«, I met the founder of the museum, João Diogo Ramos.

He told me that he had already read my entry in the guest book and wanted to get to know me. He explained to me that they were preparing for the third anniversary of the museum's founding. On Sunday, October 29th, 2023 at 8 p.m., they wanted to organize a YouTube live stream and properly celebrate this anniversary. The link:

https://www.youtube.com/watch?v=f1hBZleZIL0.

I promised that I wanted to take part too. Unfortunately, due to a private appointment, I couldn't be there until around 11 p.m. But the live stream ran for another hour and so I still got some of the event.

The founder of the museum João and me

PARABÉNS ON THE THIRD ANNIVERSARY OF THE MUSEUM ALL THE BEST FOR THE FUTURE

João is a typical entrepreneur. He studied in Coimbra and worked as a developer. His collection of SINCLAIR

exhibits became so large that at some point he was looking for space for an exhibition. He reached out to several different city departments to see if they wanted to work with him. Only Cantanhede, his hometown, has accepted. After the initial success there, several of the cities we had previously contacted came forward and then recognized the opportunities for tourism development. João is very satisfied with the cooperation with those responsible in the city and does not want to change anything. The museum generates additional funds, for example, through television broadcasts via TIMEX PORTUGAL.

COLLABORATION WITH TIMEX PORTUGAL

TIMEX PORTUGAL no longer exists. But the network of personal connections has resulted in thousands of documents from TIMEX PORTUGAL's company history being made available to the museum. The museum has now recorded these documents completely digitally and is considering how to use this treasure trove of information.

A first step is a video contribution about TIMEX PORTUGAL on the TIMEX/SINCLAIR website

https://www.timexsinclair.com/company/timex-portugal/

The video is well worth watching and summarizes the story he told me in our conversation.

For me personally, it was interesting to get to know the relationship between the mother TIMEX USA and the daughter TIMEX PORTUGAL. TIMEX PORTUGAL produced TIMEX SINCLAIR computers for the American market. However, TIMEX USA stopped selling TIMEX SINCLAIR computers early on because they were not successful in the USA. The TIMEX SINCLAIR computers were in great demand in Portugal and Poland. These were the only European markets that TIMEX was able to supply with its products due to the agreement with Sinclair in Europe.

And so TIMEX PORTUGAL won the right to develop further computers and accessories under the TIMEX label in Europe. TIMEX PORTUGAL had good and motivated engineers and developed new products such as the TIMEX Computer TC2068, the TIMEX-BEU (Bus Expansion Unit), floppy drives (FDD3/FDD3000) and also a CP/M capable computer.

DRAMATIC END FOR TIMEX PORTUGAL

Tragically, due to a political agreement between Mrs Thatcher and the then Portuguese Prime Minister, the know-how developed by TIMEX PORTUGAL was transferred from Portugal to Dundee in Scotland. This was the end for TIMEX PORTUGAL and many employees had to be laid off. TIMEX in Scotland was unable to use the transferred know-how and later had to close. Many former TIMEX PORTUGAL employees still cannot forgive the then Portuguese Prime Minister Aníbal Cavaco Silva.

GEOCACHING AND LAB CACHE AROUND THE MUSEUM

After my visit, I took advantage of another highlight of Cantanhede. There is a geocache (GC9QTHW) called SINCLAIR that leads you to the LOAD ZX SPECTRUM MUSEUM. Once you have found the solution word, enter it into the checker and you will receive a code and instructions. If you have done everything correctly, you will find a nice box and can open it with the code.

And the »Labcache Passeando por Cantanhede_@<< takes you on a path around the museum to different places in Cantanhede. You can also find the statue of the Amazon conquistador, Pedro Teixeira.

CONCLUSION

Thank you for all the beautiful moments I was able to experience in Cantanhede. The city does a lot to attract tourists. For me, this museum is the first address for everything related to SINCLAIR and TIMEX computers. I have never seen a collection like this in other museums. João Diogo Ramos is a friendly and enterprising entrepreneur who has built a reference in his hometown for everything worth knowing about the history of SINCLAIR and TIMEX computers in general and TIMEX PORTUGAL in particular.

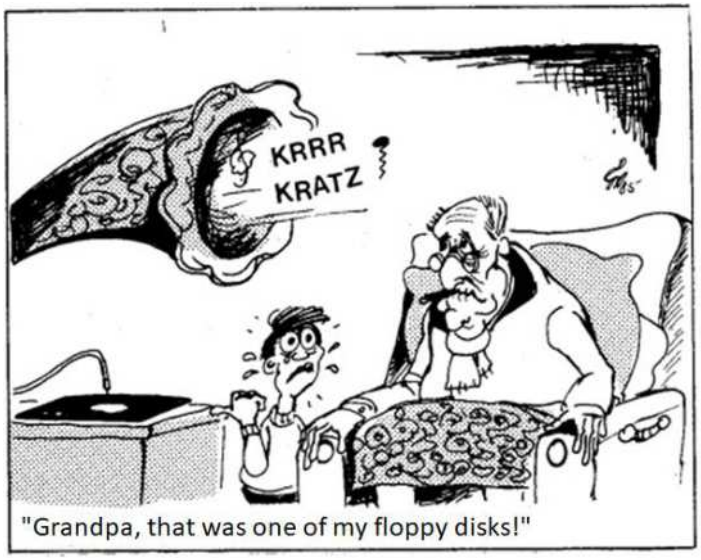
It's fun to immerse yourself in the museum's great preparation and presentation. The museum's YouTube page in particular provides a lot of additional information.

I can recommend the museum in Cantanhede to anyone staying in Portugal between Lisbon, Coimbra and Porto. The journey is worth it. And you can also get a free copy of »PLANETA SINCLAIR« ☺

For those who cannot visit this great museum, the museum offers a 3D tour.

Andreas Steinbacher

https://digitalesleben.blog/2023/11/03/besuch-im-load-zx-spectrum-museum-in-cantanhede/



»CRASH 2023 LIVE«

A JOURNEY TO THE MOTHERLAND OF THE SPECTRUM

BY THOMAS EBERLE

Hello dear Spectrum friends,

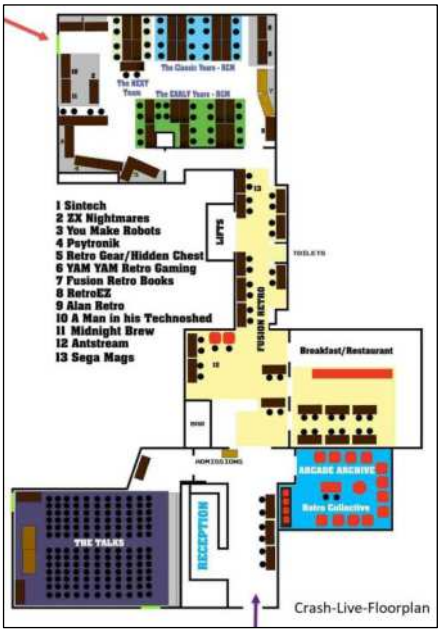
The headline is not intended to indicate a crash, but »CRASH« is the name of one of the best-known Spectrum Magazines and the only one that has experienced a rebirth in the last few years. Although in A5, but partly with the same writers as in the 80s and generally really informative. But not only does the FUSION RETRO PUBLICATION publishing house publish this and other magazines and books, it also sells (a little) software and has recently organized a large user meeting once a year.

I was unable to take part in 2022 because I was organizing the SPECTRUM40 myself and was unable to find the time and financial resources for two Spectrum trips a year. But I regretted that, because while there were around 110 visitors and exhibitors at SPECTRUM40, over 500 came to the first CRASH Show. Even more users were announced for the second event by FUSION creator Chris Wilkins, so it was clear that I couldn't miss it again.

I had already registered for the event early. About two months beforehand I booked the flight to London. My friend Sandra persuaded me not to plan the trip using public transport but to take a rental car. Left-hand traffic isn't my problem, she drives.

Finally the time had come, the day of departure came. I was well prepared, because with my partner Darren from SINTECH.UK we also had a stand at the event and I had something very special in store. The first model of the ZX TOUCH, the handheld SPECTRUM, exclusively to be presented there.

But first I had to get to the rental car and here was the first obstacle in the modern world. The vehicle was extremely cheap, but with the insurance package they talked me into, it cost twice as much. When I noticed the error, they didn't want to or couldn't cancel it or charge it back, meaning I would have been left without a car. So remember: always read carefully and take your time with what you sign. I thought I was signing the rate I had booked, but it was the insurance policy. It certainly wasn't entirely legal. Overall, as I said, still cheap. However, our nerves reached a breaking point already and we had to wait a whole two hours until the rental car company picked us up at the airport. If I had known that you just had to squeeze into the car quickly before someone else did, it would have been quicker. Here too, a bit dubious but cheap. If you want to be on the safe side, choose one of the more expensive companies directly at the airport.



The next shock came at the rental car station. Since I was the renter, I also had to be the driver. It wasn't possible for me to rent and my girlfriend to drive. But she wanted...

After two hours of waiting, I got tired of arguing and thought I could handle this. So here we go… on the wrong side of the street.

Of course, sometimes you may feel unsafe driving on British roads, but overall I have to say one can certainly be confident of oneself. It was easier than I thought, and the feeling of having taken out good insurance was quite reassuring.

First we went to Darren from SINTECH.UK. There we discussed the following day in advance and then set off early in the morning to Kenilworth, about 1.5 hours from Gloucester, pretty much in the middle of England and not that far from Walsall (near Birmingham), where both the... SPECTRUM40 and the first CRASH LIVE SHOW took place.

Once there, the first difference to Walsall became clear: while the stadium in Walsall offered tons of parking spaces, there was very little parking space at the Holiday Inn Hotel in the middle of Kenilworth for such an event. We were lucky to get one last one because we had a lot of material for our stand.

Even though we were there a good two hours before opening, almost everyone else had already set up their stand. They had arrived the day before and had stayed overnight at the hotel, some of them perhaps at the bar.

Although the space initially seemed more cramped than the last events I had attended in Walsall or before that at the museum in Cambridge, there was also something special about discovering the different rooms. Right in the foyer there was a SPECTRUM NEXT in white, the main prize of the lottery. There was also a stand from ANTSTEAM, a streaming service for retro games and in a competition of a slightly different kind,

HORACE GOES SKIING was reprogrammed so that you had to run into the ambulance with HORACE. In a side room there were arcade machines with classics like SPACE INVADERS and DONKEY KONG, while in the other direction there was the room for the speeches and demonstrations. Straight ahead you went along a corridor that was mainly filled with SPECTRUM devices for playing on the left and right.

This is how you came to the main hall with all the exhibitors. The RETRO COMPUTER MUSEUM had filled the hall with all sorts of artefacts, but most of the devices could be played without any problems. The NEXT team was also there and had set up ten devices on which you could play the latest software.

In addition to SINTECH, there were other sellers who offered both new products and classics. Both software and hardware were in demand. I took advantage of the event to purchase some games and books that had been on my list for a while. Unfortunately, I had to give up a wonderful SPECTRUM +2 (gray) because I couldn't plan that much luggage for the return flight. To my

regret, there was no stage on which I could present the ZX TOUCH; I would have had to register for the lecture hall. But it didn't matter because every one of the almost 600 visitors passed our stand at some point, so I only had to explain the ZX TOUCH a few hundred times. I liked the reaction of the OLIVER TWINS best, who shared their enthusiasm loudly with the entire room. This is how DIZZY has to be played.

Towards the afternoon the hall became noticeably empty. Oh yes... the main prize has been drawn. I didn't win... well, I didn't have any room in my luggage anyway.

There were very different speakers at the talks. As mentioned, the OLIVER TWINS were here, but there was also great interest in the SPECTRUM NEXT Talk almost the entire team was present. After all, the second batch of SPECTRUM NEXT devices was about to be sent out at the time; everyone should have their own device by now. In addition, you could probably have spent the whole day in the lecture hall, because there were many speakers, starting with well-known SPECTRUM influencers or even old friends like STEVE

TURNER (CRAFTGOLD). Unfortunately I couldn't follow it, it would have been a shame because otherwise I wouldn't have seen so many faces. So that day I got to know some of the currently most famous SPECTRUM authors, for example RICH HOLLINS or LEE CHOPS STEVENSON and of course CLIVE TOWNSEND.

You didn't have to leave the hotel to eat, simple meals were provided. I learned that English food requires a very special palate not only that day, but also the following day.

Towards the evening we left the hotel again, with a few fewer items, so many pre-orders for the ZX TOUCH that the first delivery was sold out straight away, and full of beautiful thoughts and moments about that day.

For Sandra and me, that wasn't it yet with England. We followed up with a three-day round trip and then met ANDREW OWEN in London at the end, who unfortunately didn't make it to CRASH LIVE 2023.

Conclusion: as a SPECTRUM fan it is still worth going to England, especially if there is an event like this coming up. It takes a lot of small change and a good stomach, but you definitely experience something; And not only at the meeting, but also afterwards, you meet lots of nice people. I will come back. CRASH LIVE 2024? No date has been set yet.

Te

WHEN DREAMS COME TRUE
THE ZX TOUCH IS (FINALLY) HERE!
BY FRANK DOPIERALA

BOREDOM WITH A HISTORY

Although I still have a basic enthusiasm for the ZX SPECTRUM and a great admiration for the many »engineers« out there who are still producing great hardware for our beloved SPECCY, all attempts to produce a really good successor or gaming clone have been very unsatisfactory, at least as far as my taste and standards are concerned. I would go even further and say that at this point in time I have become immensely bored, although the cellar (and part of the contents of my cupboards in the study) is still full of SPECCYS to be restored and all kinds of accessories for them, waiting to be dealt with.

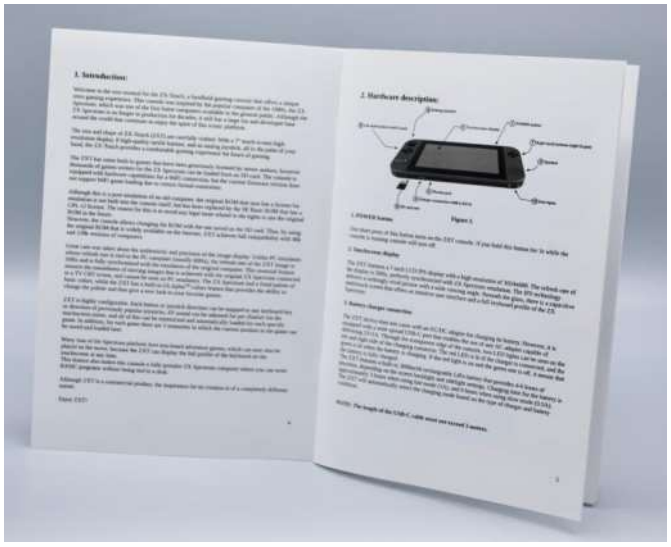
Out of this boredom, I scour the web from time to time to look around for the latest innovations, as I did at the beginning of December 2023. This time, however, I browsed on YOUTUBE for new successor hardware. I was specifically looking for the OMNI 128HQ with screw-on display, which I had already discovered a long time ago at ZX RENEW (`https://zxrenew.co.uk/`), but for various reasons had not really grabbed me. However, I liked the concept, as it offered the prospect of a battery-powered SPECCY! Because I have to admit, one of the biggest hurdles for me to get my SPECCY out for gaming was setting up the entire SPECCY jumble with all the knick-knacks when I wanted to play one of my favourite games, because unfortunately there wasn't enough space for a permanent setup. I simply didn't have the "just in between and with enthusiasm" device. So it happened that one day in December I searched for the OMNI on YOUTUBE to find out about its progress. I quickly found two relatively recent posts, one was from »THE TAYLOR AND AMY SHOW« (unbelievable - two American women who tested the OMNI HQ and were more than enthusiastic!), the second was from »MR LURCH'S THINGS«, a very well-founded test, which unfortunately confirmed my prejudices about this device. Not that I want to belittle the work of the creators, but I am also a very big fan of well thought-out and well-made technology and the OMNI obviously still has its weaknesses.

Back in 2015, I bought the SPECTRUM VEGA via the crowdfunding platform INDIEGOGO because I thought it was the first really cool idea for playing games quickly and easily. Looking back, I would say it was a good first step, but it was probably more of a version 1.0 beta and version 2.0 should have followed as quickly as possible. Creating the keyboard configuration for each game alone was very time-consuming. Version 2.0 was then also promised in the form of the VEGA+ and from the form factor alone I thought »YES! THIS is exactly the right thing!«. As we all probably know, the VEGA+ never made it into series production. So, boredom took hold of me again...

But back to YOUTUBE. After watching both of the above videos, I was torn as to whether I shouldn't order an OMNI despite its shortcomings, but the concept of an »original-look SPECCY with folding LC display« somehow appealed to me. But what does YOUTUBE do? It suddenly suggests a video from "GENTLEMEN'S PIXEL CLUB", where an ominous ZX TOUCH is presented/tested. ZX TOUCH?? Huh?? BOOM - FULL attention!!

EXCITED LIKE A LITTLE KID

I watch the video and almost fall off my chair! That's what I was looking for! Where can I get THAT? I immediately start researching and then I almost fall off my chair again: the general importer for Germany is also SINTECH! And: No, I'm not getting any money for writing this, nor did SINTECH know about my "lack" of such a device in advance. Apparently, the universe has heard my wishes, including the simple procurement process. So, I ordered my ZX TOUCH directly on 18.12.2023 via the SINTECH SHOP. Delivery: In a flash (I wouldn't have lasted long either). Unpacked, connected to the charger, read the instructions, switched on... and... What can I say...



I LOVE PERFECTION

As I wrote at the beginning, I take my hat off in admiration to the many (hobby) engineers who continue to design and manufacture excellent hardware for the Spectrum. Paul Farrow from the UK, the creator of the SPECTRA extension (www.fruitcake.plus.com) and ELMAR ELECTRONICS from Croatia (http://zx-vga-joy.com), who designed and manufacture the ZX VGA JOY interface, are just two of them. Both products are not only extremely professional, the creators also have an eye for style and beauty, because all products are not just "somehow" designed and the components slapped on, both the circuit boards, the assemblies and the associated software show a lot of care and attention to detail. A craft that not many people recognize and appreciate, but perfectionists do.

And as luck would have it (more likely by design), the creators of the ZX VGA JOY eventually decided to design a really good Spectrum gaming console. And unlike some others before them, I think they did everything right that could possibly be done right.

OUT OF NOWHERE

In contrast to all the crowd-funding plans (or even the few implementers), the ZX TOUCH wasn't announced in advance and that was intentional! The makers were aware that they would only be putting themselves under unnecessary pressure if, like many before them, they announced that they would be building such a device, setting the bar high and perhaps disappointing or alienating potential buyers again over time due to many different hurdles, as announced schedules could not be met. Nevertheless, this is a courageous decision, because unlike crowd-funding, the financial resources here have to be advanced out of the company's own pocket. Hats off!

But then: Suddenly there it is - the ZX TOUCH, really, almost out of nowhere. And not only was it not there before, it also outshines everything that has come before and most likely will come after!!

PERFECTION FROM A TO Z

Almost 3 months have passed since I received the ZX TOUCH and I'm still just as excited. And this is "simply" due to the following reasons:

- The makers have obviously thought very, very carefully about the overall concept in advance
- The shape of the case is perfect
- The feel is great and very high-quality (and based on a handheld games console from a large and long-established manufacturer from Japan)
- Top battery life (4-6 hours, depending on whether the "ambient light" is active)
- The battery is replaceable
- The controls are incredibly well thought out, both in terms of software implementation, through to interchangeable control buttons and the analog joystick via a few screws!!

- The software is pure madness (in a positive sense), especially for a first release (v1.09)!
- The »boot time« is non-existent! Switch on - one second - get started
- The entire user interface is absolutely on a par with iOS and Android in its smooth animations
- The user interface and its various options are incredibly well thought out

- Compatibility with an original SPECTRUM (48K and 128K) is 100%, at least according to my tests
- The structure of the SD card is clear and logical and yet the folder structure can be freely selected to suit your own taste. The formats Z80 (from firmware 1.10), TAP, SNA and TRD are currently supported
- ULAplus support
- Extremely brilliant, 7-inch display
- CRT emulation, by omitting every 2nd pixel line - very successful!
- USB-C charging socket
- Integrated WLAN module (currently still without function)

During my time using it so far, there have been no crashes or similar, hangs in the GUI or any other abstruse behaviour that might suggest a »hobby project« or a first firmware release. Everything seems incredibly high quality and stable. Many features were not at all clear to me in the beginning and I thought »What's that supposed to do?« or »What's that supposed to be good for?«. But once you've spent some time with the console and loaded and played various games, you realize that everything really does make sense.

Example 1: Even in full-screen mode, a selection of 15 buttons is permanently visible at the bottom left and right of the main screen. At first I thought »how stupid does that look?«. BUT: If you play several different games, you quickly notice how often you need these keys and appreciate them without having to show or switch anything (like the entire virtual SPECCY keyboard, for example). What was even more astonishing for me in this context, and something I've never noticed over the decades, was how many games actually use the same keys for the various options, such as »K« for keyboard or »J« for joystick (usually Kempston) or »S« for start or »1«, »2« etc. for the number of players. Ingenious! And should you ever play a game that requires keys other than the default ones - no problem! You can program these side buttons individually for each game (with the exception of ENTER and SPACE on the right-hand side). And to make sense of it all, you can also save this individual game configuration specifically for this game and load it the next time you play. This is also very well thought out and does not require any stupid file selection. You load the game you want to play, go to »Save/Load« in the settings (cogwheel) and tap on "Load current game settings" and all the settings you made and saved earlier are loaded again and you can start immediately. This also includes settings such as volume and screen brightness.

Speaking of »saving«: three »save slots« are available for each game. And here too, the user does not have to worry about file systems or names. Scores are saved using the »Save to Memory 1« (to 3) buttons (or in direct access there are the »MS1« to »MS3« buttons for saving) and loaded using »Load from Memory 1« (to 3) (or again in direct access using the »MR1« to »MR3« buttons) - again: brilliantly simple! This way, once you have actually fought your way to level 4 with all three lives, you can save there and continue directly in level 4 with the three lives the next time.

Example 2: Depending on where and when you are playing a game, you may want to change the volume and/or the screen brightness. You can easily access the sliders for this by tapping on the "keyboard button". The full Speccy-Rubber keyboard is then displayed, as well as the sliders for volume and brightness to the left and right of it. But the great thing is that you don't even have to call up the keyboard in the game to change the volume or brightness, you just have to remember the positions of the sliders as if they were displayed. You can move the sliders up and down directly in the game, i.e. on the playing field, and thus change the volume and brightness! Oh yes, of course the sound can also be completely switched off directly via the »Mute« button on the display.

Speaking of »tapping« and »touching«: the buttons and especially the virtual rubber-speccy keyboard keys are of course not particularly large on the 7-inch screen. But don't worry: I've already said that the entire system is not inferior to either Android or iOS in terms of its operating feel, and here too it scores full marks: even tapping the virtual keys is reliably identified and executed, even with thick sausage fingers, no »mistyping« or similar.

Incidentally, the on/off button is located at the top right on the edge of the device, is slightly curved, blends in perfectly with the overall look and is easy to reach and operate if you are already holding the device with both hands »to get started«.

NICE GIMMICKS

Presumably primarily for production reasons, but also for "optical gimmicks", the intermediate layer of the ZX TOUCH, i.e. the assembly containing the motherboard between the upper and lower parts of the housing, was made of transparent plastic. Multi-colour LEDs were then installed on the four corners of the mainboard, the lighting of which can be configured. Here, too, you have a wide range of options. The overall brightness can be adjusted continuously (including completely OFF). In addition, you can have the colours change randomly or have the LEDs take on the colour of the current Spectrum screen edge or have a "light organ" flicker from the sound generated by the AY chip. Or simply set your own personal colour with the help of stepless red, green and blue sliders. Even though there are only four LEDs, you should of course bear in mind that they also consume power, which is detrimental to battery life.

The ZX TOUCH has a good integrated speaker. However, even at a very low volume, the SPECTRUM beeps of the various games can get on the nerves of the wife, who may also be lingering on the couch watching her favorite show. If you still don't want to do without sound, you can plug in your headphones via the standard 3.5mm jack socket.

In general, the connections are perfectly placed and minimalistically positioned. The USB-C charging socket is located right next to the jack socket. The ZX TOUCH is supplied without any additional accessories, only the printed manual is included. However, everyone should have a standard USB charging adapter at home by now. But be careful: the device can really only be charged via a USB-A charging adapter, not via the USB-C interface of a PC! This will not be changed by a firmware update, as

USB-C interfaces on the PC first negotiate the voltage to be supplied with the »client« and these electronics are missing in the ZX Touch. Next to the USB-C socket is the micro SD card slot with a ballpoint pen mechanism for snapping the card in and out.

Finally, on the subject of »gimmicks«, it should be mentioned that the ZX TOUCH also comes with 22 integrated games from a more recent date. These are permanently installed in the device's FlashROM. For me personally, the game »DUNGEONS OF GOMILANDIA« proved to be one of the most addictive.

WHAT I PERSONALLY DON'T LIKE SO MUCH

There are really only small things that I personally don't like 100% and may even be a matter of taste. The thing that bothers me the most is the fact that the micro SD card sticks out a little even when it is inserted, i.e. fully engaged. Presumably this is to make it easier to remove. However, this would also be possible with an absolutely flush closure to the housing. As the micro SD card slot is located at the bottom edge of the device, it has happened to me at least once that the card was pressed when the device was placed on the table and then fell out.

In order to achieve 100% compatibility with the games, the original Sinclair ROMs are required as files, which are then stored on the SD card accordingly. However, some games, especially the older ones, do not work with the 128K ROM or the "NINE TILES" ROM supplied. If you switch to the file selection after switching on, you have to select at the top of the screen whether you want to load a game for 48K or 128K. Unfortunately, this selection is always set to 128K after switching on, so that sometimes the game does not load or run correctly and you have to start this process again to set the ROM to 48K.

Furthermore, although the manual is very well written and detailed (only in English), some chapters or features are a bit confusing in my opinion and could be

better and more intuitively placed and written. But that's about it for criticism.

WHAT IS STILL MISSING DESPITE ALL THE PERFECTION (COMPLAINING AT A VERY HIGH LEVEL)

The device currently only supports the TAP, SNA and TRD file formats. Perhaps this is also due to the fact that you have to release a product at some point and then add further features via firmware updates. I would definitely like to see support for the Z80 and TZX formats.

Another point that would be very important to me personally is the implementation of POKEing, for example to give a game an infinite number of lives or time or whatever else. The SD card file structure would already offer this possibility today. When I asked "RETRO COMPUTERS ELMAR ELECTRONIC", they said that they thought this was a good idea and would certainly be included in one of the future updates - I'm excited and confident!

SUGGESTION

In my e-mail to »RETRO COMPUTERS ELMAR ELECTRONIC«, the manufacturer of the ZX TOUCH, I started to rave about the fact that you could, for example, use the WLAN module to connect it to your home WLAN as normal and either store a specific web address on the SD card or »ELMAR ELECTRONICS« itself could host a server from which the ZX TOUCH or other POKEs could be used to access the ZX TOUCH. POKEs for the corresponding games and you can load these tweaks directly onto the device... You can still dream...

CONCLUSION

Words can't really describe how excited and convinced I am about the ZX TOUCH. The thing is just joy and fun in every way imaginable! And I have to admit, what also surprises me is the more than reasonable price for this piece of hardware, software and quality. This thing is worth every cent. When I look at what other manufacturers sometimes charge for ridiculous prices. For example, I think with horror of the Spectrum Next - completely crazy, even though it is of course a complete computer, but still, in my opinion, beyond good and evil! If you want to play games smoothly, efficiently and well, you can't ignore the ZX TOUCH. I'm even bold enough to say: it's by far the best (Spectrum) console ever and it has set the bar incredibly high, so I assume that no one can and will top it in the future. And the manufacturer will certainly do everything to make them even better in the future with appropriate updates..

ADDENDUM

As soon as one or two »weaknesses« were mentioned in the report, the manufacturer pushed out the first firmware update in version 1.10 and ironed out errors that I hadn't even noticed yet. But it also provides direct support for the Z80 file format! CHECK! One less to-do

With firmware version 1.10 there is also a new, associated manual with the same version number - THIS is what product care should look like! So here again: five star PLUS!

The main changes in the new firmware version affect both the regular audio output (48K) and the AY sound output in 128K mode, especially when samples should be played. Furthermore, a problem was fixed when there were more than 200 files on the SD card, displaying them correctly, as well as scrolling and navigating in the game selection on the SD card in general. Even file names with more than 50 characters are now displayed correctly. I won't list all the bug fixes here; there is a separate release notes PDF document on the manufacturer's website

(https://zx-touch.com/wp-content/uploads/2024/02/ZXT_release_notes_v1_10.pdf).

However, my aforementioned criticism regarding the 48K or 128K ROM selection has been changed! Now the ROM selection can be permanently defined with the game to be loaded! And again: CHECK!

And the function described above that allows you to reload saved console and game settings (not game saves!) has now been optionally automated! This means that if you have saved such a configuration for a specific game, you can now have it loaded automatically when the game is loaded.

And last but not least, you can now apparently create and arrange your own dashboard with your own individual favorite games. This is what the included and integrated games look like when selecting the game. Previously, you could only display a list of a directory of all the files in it.

There has never been a single firmware update for the VEGA console, and less than four months after the ZX TOUCH was released, the manufacturer released a great update.

Keep it up!

THE ATARI XL/XE-COMPUTERS

»ALMOST A BUSINESS CRIME THRILLER«

BY JOACHIM GEUPEL

The name »ATARI« stood and still stands for a piece of ingenious computer technology, but at the same time also for mismanagement, sleepy developments and missed opportunities.

The series of computers developed by ATARI is long and each individual device represents innovation and pioneering technology. If I'm being completely honest, I used to be a little jealous at the owners of the Atari computers; until I joined the ranks of owners of these more elegant devices by buying an ATARI 520 ST+ in 1985 with an overwhelming 1MB of memory at the time. This computer, in turn, was one of a series of ATARI ST computers that I have owned.

ATARI HISTORY - THE RISE AND FALL OF A GROUNDBREAKING IDEA

It is not surprising that the name »ATARI« is associated with video games from 1972 to around 1984. After all, ATARI was the market leader for years, first for arcade machines, and later also for portable game consoles such as the »ATARI 2600« console.

The first bearer of the name »ATARI« was the manufacturer of the games consoles in question with the short name >ATARI INC.«, which was founded in 1972 by NOLAN BUSHNELL and TED DABNEY and was based in Sunnyvale, California. In 1984 the company was split into »ATARI CORPORATION« and »ATARI GAMES« and thus became ATARI, INC. dissolved.

The original company can be considered a true pioneer in computer gaming. »PONG«, the game on whose success ATARI built itself, was a relatively simple computer game from today's perspective, in which a small square, the »ball«, has a knob, the »paddle«, over a dashed line and from the »paddle« of the game opponent had to be beaten back. I would like to refer to the article on Wikipedia, which deals with »Pong« in detail and is very interesting to read.

Due to a lack of equity, which was largely used up for the development of the ATARI VCS 2600 games console, »ATARI« was sold to WARNER COMMUNICATIONS in 1976 for $28 million. WARNER COMMUNICATIONS benefited greatly from ATARI's success, so that a good half of the total sales of 2.9 billion dollars achieved in 1982 were generated by ATARI. This following story reads like a business crime novel: slump in sales, slumping share value, insider dealings by company management, attempts at hostile takeover, involvement of COMMODORE, etc. If you are interested in the company's history, you can read it here:

https://de.wikipedia.org/wiki/Atari,_Inc._(1972)

and

https://de.wikipedia.org/wiki/Atari#Fusion_mit_JTS:_Das_Ende

In 1984, WARNER COMMUNICATIONS sold the console and computer branch to the legendary JACK TRAMIEL, who had recently been forced out of COMMODORE's management. This company continued under the name ATARI CORPORATION. The resulting ATARI ST series of computers is legendary and really shook up the 16-bit computer market.

In 1996, ATARI CORPORATION merged with »TANDON CORPORATION«, a subsidiary of »JTS« and finally closed in 2001 after several changes of ownership and dissolved in 2003.

ATARI COMPUTERS

Of course, it is clearly not enough to just talk or write about the XL and XE series. After all, the ATARI 400 and ATARI 800 computers are excellent home

computers that were developed starting in 1977 and shook up the corresponding market before the successor models ATARI 1200 XL, ATARI 600 XL and ATARI 800 XL were introduced. The ATARI 1200 XL however has a special role because it was taken off the market relatively quickly due to compatibility problems with peripheral devices from the previous models of the ATARI 600 XL and 800 XL models.

While the 1200XL was still being introduced to the American market, work had already begun on two additional home computer models in the XL series: the 600XL, which was equipped with only 16 kB of RAM - which was largely based on the »PROJEKT SWEET-8« or »LIZNY« from 1982 - and the 64 kB model 800XL, which, unlike the 1200XL, was intended for a worldwide release.

During this time, the home computer market was in an unprecedented price war, especially the COMMODORE 64 and the TEXAS INSTRUMENTS TI-99/4A. ATARI couldn't keep up with the 1200XL, which cost $899, as the competition often offered their 64K models for less than $500 - ATARI itself also had to keep up if it wanted to have a chance on the market. The ATARI 800, which was released in 1979, cost an impressive $1050 in May 1981, but two years later it was only $165.

The 800XL was presented for the first time at the »SUMMER CES« in June 1983, series production began in the summer of 1983 and in December 1983 it went on sale in small numbers in the USA, the United Kingdom and France - the rest (Western)Europe had to be patient until spring 1984.

Technically there is little that distinguishes the 800XL from the 1200XL, but some changes in the operating system have been reversed so that older and system-related software also works again. Through the integration of BASIC, which previously always had to be reloaded via a plug-in module, the operating system grew from 16 kB to now 24 kB. The deletion of the +5V on pin 12 of the SIO interface was also withdrawn. The parallel bus interface was added. The design was very similar to that of the 1200XL, but the housing was now a little more compact. The module bay, which was sometimes too small for third-party plug-in modules on the 1200XL, was enlarged again and moved upwards. In addition, the controller interfaces changed from the left to the right side of the housing.

However, massive delivery problems on the part of the suppliers, as well as the desolate financial situation of ATARI, ensured that only very few XL copies arrived at dealers during the Christmas season of 1983, the most important period in retail. ATARI lost important market shares to competitors such as COMMODORE and SINCLAIR. It was not until the first quarter of 1984 that there was an improvement. In January 1984, prices were raised by $50 because, according to those responsible, they no longer wanted to participate in the ruinous price war in the industry.

The first rumors that ATARI wanted to concentrate from now on only on software sales and stop the hardware business were already going around. At that time, ATARI was losing several million dollars a day, and the parent company, WARNER COMMUNICATIONS, was soon desperately looking for a buyer for the ailing company. The buyer was found in July 1984: ex-Commodore boss JACK TRAMIEL, who first sparked the price war in the computer industry with the COMMODORE 64. Due to good forecasts, production of the 800XL was maintained under the leadership of the newly founded ATARI CORPORATION. Almost a year after the first PAL devices were delivered, the SECAM version came onto the market in France in November 1984, but the PAL model also remained available. In total, ATARI was able to sell around 700,000 computers in 1984 (including 600XL), whereas COMMODORE sold two million computers.

FROM 1985

In April 1985, production of the 800XL(F) was discontinued; the successor 65XE and its larger sister model 130XE were already available in some countries - however, the supply produced for the American market should last for about a year. In March 1988, production of the model was resumed due to the rapidly increasing demand in the Eastern Bloc countries, which a version of the 65XE offered there as the 800XE could not fully cover because its production capacities were completely exhausted.

From the summer of 1988, new 800XL computers including an XC12 cassette drive were available to be bought again. Behind this sharp increase in demand is the fact that the governments of Western countries have relaxed export restrictions for high technology to the Warsaw Pact countries - i.e. Eastern Central Europe, the Soviet Union and Southeastern Europe - and they were now officially allowed to import 8-bit home computers. The 800XL was the first officially imported western home computer in the GDR, and the computer was also very popular in Poland and Czechoslovakia. This second series was manufactured at ATMC in Taipei until the end of 1991, and sales continued until 1993. The remaining devices could then be purchased at very reasonable prices during the 1995 clearance sale in the central warehouse.

It's probably not wrong to say that by 1985 ATARI was essentially competing with itself. With the ATARI 256 ST, the first computer in the ATARI ST series

came onto the market. This computer was one of the first to have a graphical user interface. The 68000 processor made it much more powerful than all computers in the XL and XE series. The main memory was also significantly larger, originally 256kB, later 512kB up to 4MB. The appearance of the ATARI ST with its comparatively low price of 799 US dollars and around 1000 DM in Germany compared to the APPLE MACINTOSH of more than 2400 US dollars initiated the decline of the 8-bit computers. According to Wikipedia, the ST-COMPUTER model range included more than 20 different computer models until 1993. Not every model has appeared on the German market.

SWAN SONG

Corporate policy decisions and poor workmanship quality resulted in ATARI losing significant market share. Although many new models had come onto the market, such as the improved ATARI TT with 6030 processor and a little later the ATARI FALCON, which was then known as a supercomputer, these innovations actually came far too late. During the same period, the market for personal computers began to boom — or even to explode. The market shares that ATARI had held until then collapsed and ATARI again incurred massive losses. The “ATARI DEUTSCHLAND” branch was closed after CEBIT 1992 and shortly afterwards ATARI also withdrew from other European countries. Only ATARI NETHERLANDS remained, from where sales were maintained mainly to Eastern Europe.

In 1993, ATARI started a new attempt to establish the »JAGUAR« game console on the market. However, the sales figures fell short of expectations and used up the financial reserves. In February 1996, Atari merged with the hard drive manufacturer »JTS, INC« and ceased its business activities. The product portfolio and trademark rights were sold. In February 1998, all trademark rights were transferred to »HIAC XI CORP.<<, which in turn was a 100% subsidiary of the gaming software manufacturer »HASBRO INTERACTIVE.<< After bankruptcy, JTS, INC. was liquidated by court order in January 1999. In January 2001, the French game manufacturer »INFOGAMES« took over the entire computer game division of »HASBRO« including the brand name »ATARI«.

The turbulence never ended. In the fall of 2007, ATARI USA announced that it would limit its distribution to North America, although »ATARI EUROPA« was doing well at the time. In 2009 ATARI decided to finally turn its back on Europe in order to concentrate more on the American market. The US division »ATARI. INC.<< filed for bankruptcy at the beginning of 2013, which was averted through an insolvency plan and new management.

ATARI couldn't leave the hardware business. In 2017, ATARI announced a new console, which was crowdfunded at the end of 2018. This console, called »ATARI VCS«, came onto the market in 2020 and was discontinued in 2022 because the company made a loss of $5.3 million. You can read it at the following link:

(https://www.pcwelt.de/article/1440295/atari-vcs-verkauf-der-retro-Konsole-wird-einsteller.html).

THE ATARI XL

The ATARI XL is an 8-bit computer that comes in two versions. The ATARI 600 XL has a main memory of 16kB, which can be upgraded to 64kB with a little tinkering skills, while the ATARI 800 XL has 64kB of memory from the start. The 600 XL is only 16cm deep, while the ATARI 800 XL has a depth of almost exactly 22cm.

The XL SERIES computers are the successors to the successful ATARI 400 and ATARI 800 computers, which were delivered for the first time in late autumn 1979.

TECHNICAL DATA

The XL/XE computers can, with reservations, be viewed as a multiprocessor system. The main processor is significantly supported by several special chips, several of which can be programmed independently. These special chips, in which special functions were combined, made the hardware clear, the number of components was significantly reduced and costs could be reduced.

OVERVIEW

Publication year:	1983
Manufacturer:	Atari, Inc.
Processor:	6502C with 1.77MHz clock frequency
RAM:	64kB
ROM:	24kB with Atari Basic and XL OS
Text:	40 characters and 24
Graphics:	12 graphic modes from 20×12 to 320×192 pixels, max. 16 colours at the same time from 256 colours
Sound:	POKEY, Atari Potentiometer and Keyboard Integrated Circuit, four programmable sound generators
Keyboard:	57 keys QWERTY, 5 special keys. Some of the keys have three different control functions and special characters
Disk:	External Cassette Player, Atari 1010, Atari 1050 Floppy Disk Station & Atari 1055 Floppy Disk Station
Connections:	Monitor, HF video, module port, combined serial & joystick port as »Peripheral«, power

PROCESSOR 6502C

From the Atari 1200 XL onwards, the 6502C processor was installed. It is a special version of the 6502 processor and has the beautiful name “SALLY”. It can be clocked at up to 4 MHz and has an extra “Stop” pin. In the XL/XE series computers in the PAL version, the processor is clocked at 1.77MHz. The NTSC version is slightly faster at 1.79MHz. The original version 6502 came onto the market in 1975.

ANTIC

»ANTIC« here does not mean that this component was designed by a mysterious ancient civilization, not at all! ANTIC stands for “Alpha-Numeric Television Interface Controller”. This chip is actually a processor that prepares the screen structure. The processor is able to combine several graphics modes on one screen at the same time. It has 14 different screen modes and, together with GTIA, significantly reduces the load on the main processor. ANTIC allowed horizontal and vertical smooth movement of both parts of the screen and the entire screen, which was quite unique at the time.

GTIA

The actual display of the image is carried out by the special chip »GTIA«, which receives its data from »ANTIC«. GTIA stands for »Graphic Television Interface Adapter« and takes on the task of bringing the data from ANTIC to the screen. GTIA contains a number of programmable registers that can be used, for example, to determine the actual appearance of the colours that ANTIC wants to display.

In fact, this component impressed me the most during my research into the XL computers. GTIA is an all-rounder.

GTIA Manage the »player/missile graphics«. »ANTIC« can display up to four players and up to four missiles at the same time. These »structures« are graphic elements that can be moved across the screen independently of the rest of the image. GTIA takes care of the movement of these elements, controls whether a player/missile appears in front of or behind a certain part of the graphics and is able to detect collisions between player, missiles and the rest of the graphics. This technology significantly reduces the load on the processor when displaying moving graphics. Other computers call this display option »sprites«, which is usually created using software.

And because that's not enough, GTIA also handles the joystick keys and some of the additional keys on the XL keyboard. Since he is still bored, he also creates the keyboard click.

POKEY

The »POKEY« is the »POTENTIOMETER and KEYboard controller«. It can also be found in the

predecessor models ATARI 400 and ATARI 800 as well as in the successor model ATARI 130 XE. It can also be found in the ATARI 5200 games console and in some arcade machines.

ATARI was one of the first manufacturers to use a controller that scans the keyboard. Each key press triggers an interrupt, which tells the processor that something is happening on the keyboard.

It has four sound channels, the voices, the timbre of the voices, the volume and the pitch can be freely programmed. The POKEY also gives computers the ability to connect sound channels together in pairs, which makes it possible to further influence the sounds produced. In addition, samples can be played, although they put a lot of strain on the processor.

As that's not enough, the POKEY also operates the serial interfaces and queries rotary controls from connected peripherals such as a painting board.

FREDDY OR FREDDIE

It's not really clear what this component does. In my opinion it is responsible for memory management similar to the MMU in the ATARI ST. I found the following text in the English language Wikipedia:

FREDDIE is the name for a 40-pin large scale integrated circuit found in later model Atari 8-bit computers. It is a RAM address multiplexer, used for DRAM access. Atari created this chip to replace several other chips to cut costs and to enhance CPU and ANTIC memory access.

FREDDIE, combined with a C061618 MMU (XL/XE) and C025953 EMMU (130XE) allows the CPU and ANTIC to access memory independently of each

other. Originally designed for the cancelled 1400XL and 1450XLD, it was eventually used in the 800XLF (labelled »800XL« refers to European version), 65XE, 130XE, and XEGS.

CONCLUSION

The ATARI XL/XE computers are excellent devices that allow a wide range of applications. Similar to the SPECTRUM, extensions have been and are still being developed. There are replicas for some of the special ICs, just as it is possible to upgrade the XL to 1MB, and there is also an extension that allows the computers to get 1024 colours, display 80 characters per line and carry out bit blit operations. For ATARI users and programmers it is worth visiting the website »LOTHAREK« at `https://lotharek.pl/` .

The story of »ATARI« is undoubtedly that of people who are among the gaming and computer pioneers. It is exciting and reads almost like a business crime novel. With appropriate management, the ATARI GROUP could have played alongside the big players like MICROSOFT and APPLE if important decisions had been made in a timely manner and even more important developments had not been overlooked. Here they are called the short-term triumph of the ATARI ST series, which really shook up the mass market with the GEM as a user interface.

The XL and XE computers are definitely superior to the COMMODORE 64 because of the well thought-out concept and the possibilities they offer, even if they don't come close to the ZX SPECTRUM - but I have to say that, since I belong to the »SINCLAIR FACTION« and all Other home computers aren't that good anyway. There are four 8-bit computers in my collection, which probably confirms my affection for ATARI.

Sources: Wikipedia, Atari Museum, Himue's ATARI 8-Bit website

Jg

»ZXED SPECTRUM TOOLKIT«

1983 - ROY EASTWOOD (DK´TRONICS LTD)

BY HARALD LACK

Application description: © 2024 Harald Lack
Hardware used: Original ZX Spectrum 48K
Published in the Spectrum User

Dear fellow users,

Probably everyone who started with the Spectrum and not »only« played games, but was also involved in programming or first got to grips with the subject, sooner or later came into contact with SPECTRUM-BASIC. Inevitably, insofar as the interpreter actually represents the interface of/to the operating system. That's why I too had my first programming experiences (a long time ago) with SPECTRUM-BASIC, which is not a bad version of MICROSOFT-BASIC per se. Nevertheless, it lacks one or two useful functions that other home computers, as these machines were often called at the time, possessed. But no BASIC is complete in the sense that it contains all the functions required. That's why there were extensions to the existing BASIC very early on and I would like to report on a small, but nevertheless very useful one for me today in retrospect. At a later date, I would also like to introduce another representative of these add-ons, as they would probably be called today. Perhaps some of you (especially "late starters") are not yet familiar with the tool? In any case, I would like to take a look at ZXED below, which was also called a toolkit. Especially for people who - like me, admittedly - like to program quick and dirty, this BASIC extension was quite practical and useful, even if it didn't offer anything spectacular. Let's be honest, when you work with an interpreter language, you quickly try out one thing or another. Normally, not much can happen. There was usually nothing more than an error message from the interpreter, and system crashes were relatively rare. So when you were tinkering around in your program listing, you often thought longingly of one or two useful functions that SINCLAIR BASIC simply didn't offer. Here came the

ZXED SPECTRUM TOOLKIT came in handy. It was launched back in 1983 by DK'TRONICS LTD and was designed by Roy Eastwood.

DK'TRONICS LTD was a very respected company at the time, which developed some useful things (including various hardware) for the Spectrum. The TOOLKIT contained a total of twelve new functions, namely (in short form) the following:

ALTER - BYTES - COPY - DELETE - FIND - HELP - LINE - MOVE - APPEND - RENUMBER - VERIFY - AUTO LINE NUMBERS

So much for a quick overview. Below I would like to go into a little more detail about the individual commands/functions and explain them briefly. However,

most of them should be self-explanatory for »old hands«.

The cassette of the tool contained two different versions and was available for both the SPECTRUM 16K and its »big brother« - the SPECTRUM 48K. Of course, both versions could be used on any computer. Of course, this didn't make much sense on the SPECTRUM 16K, as it only had around 9K of free memory available anyway. So the short version of the tool came in handy. This only contained the basic functions BYTES - DELETE - LINE - RENUMBER and finally AUTO LINE RENUMBER. That's why the tool was only 1675 bytes in size while the »complete version« took up 3612 bytes.

As already mentioned, I would like to briefly explain/describe the individual functions again below:

A (ALTER)

Searches for a specific text string and then replaces it. Of course, both specifications must be given. You should then specify in which lines of the listing this search and replacement should take place. I will come back to this later in the VERIFY function.

B (BYTES)

Returns the number of free bytes for our program to be created (including its variables).

C (COPY)

Copies a certain number of program lines from the listing. To do this, we must specify how many lines and, above all, where they are to be copied to.

D (DELETE)

Deletes a defined number of program lines that we have to specify beforehand.

F (FIND)

Searches for a specific string. All program lines containing the search string are then displayed on the screen.

H (HELP)

Displays the help menu and explains the basic functions.

L (LINE)

Returns the start address of a specific line. The address is the first character of this line.

M (MOVE)

Works in the same way as the COPY function, except that the basic lines are not copied but deleted or moved.

P (APPEND)

Appends a defined string to lines.

R (RENUMBER)

The program lines are renumbered, whereby the corresponding GoTo's and GoSub's are also taken into account and the references within the program are also taken into account for the functions for LIST, LLIST, RESTORE, RUN and SAVE ... LINE. The start and end line, the new start line and the increment are passed first.

S (SEQUENCE)

Inserts automatic line numbers, whereby the start address and the increment must be specified.

V (VERIFY)

Specifies (if activated) all lines in which the string changed with ALTER occurs. If the function is not activated, no corresponding listing is output, but the number of successful changes is.

These are the twelve new functions we get with ZXED. As I said, this may sound trivial, but it is particularly useful if you often work with BASIC listings. Here are a few general notes on using the tool.

The tool itself consists of four program parts which I will not go into in detail here. Just so much that the tool is loaded via the command

LOAD "ZXED". The loader then changes the RAMTOP so that the machine code part can be loaded in the right place. The tool itself can be moved freely, so that it also works together with other utilities that store code above RAMTOP without any problems. This can be quite helpful in some cases. After successfully loading the tool, we are back in the SPECTRUM-BASIC interpreter and can now, for example, append an existing BASIC program with the MERGE command. However, this only works if the program does not have any program lines in the range 9900 - 9916. If this is the case, we have no choice but to renumber the lines manually and then append the ZXDA3 program section with Merge. It does not hurt to check the listing to be loaded beforehand. ZXED is then ready for use. If you are short of memory, you can of course also use the slimmed-down version with a code length of only 1675 bytes. In this case without the full range of functions.

After our program to be edited has been loaded, we start ZXED with RUN 9900. We can see that the tool is working by a flashing cursor "T" in the bottom left corner of the screen. Here we can now use the "H" command to call up the help menu and display the available options. We can access the respective function by pressing the corresponding button. If you want to find out more, which will be useful at least at the beginning, you can read detailed information on the following pages in the help. At the end of my short report, I will go into the relevant error messages when using ZXED. Just this much - they do not differ significantly from the familiar SPECTRUM error messages. More on the minor differences later.

Of course, it can happen that you have activated ZXED by mistake. As is typical for SPECTRUM, the tool is excited by pressing the SPACE/BREAK button and the error message "L -BREAK into program". This is always possible when the flashing "T" cursor is displayed or when we are in the menu. It does not matter which mode the cursor is in.

Now that we are at least basically familiar with the operation, I would like to take a closer look at the individual functions.

ALTER - A KEY

As mentioned above, the purpose of this function is to replace a specific string with another string. You can also restrict the line range in which this is to take place.

If we have pressed the "A" key, we see the following screen:

A ALTER - Search & replace
'L' (the »L« is the normal cursor that we know from the interpreter. Now we enter the character string that we want to replace and end everything with ENTER. The screen changes as follows:

A ALTER - Search and replace
'search string'
to be Now we enter the new string and press ENTER again. We are then asked from which line we want to start, whereby any previous theoretical finds are of course ignored.

Now the screen shows the following:

A ALTER - Search and replace
'search string'
to be 'new string'
From line? Here we enter the start line and press ENTER. Then we have to enter the last line in which we want to search and replace. In the same way as previously mentioned, matches in higher line numbers are of course not taken into account. This is logical. Now the character string in the range "start line" to "end line" (inclusive in each case) is searched for and changed. After we have entered the end line and pressed ENTER, the screen looks like this:

A ALTER - Search and replace
'search string'
to be 'new string'
From line X To line Y (where we want to assume the corresponding start and end lines for X and Y). As already explained above, there is also a connection with the »**VERIFY**« command. It should be noted that - if this is active - all the lines in which the replacement has taken place are specified below. We can also see how many replacements there have been. If the message 0 OK is not displayed afterwards, then not all replacements have been carried out. More on this later.

At this point, a small note on how to handle the KEYWORDS. It takes a bit of manual work to get this right, but that should not be an obstacle. First press the »**THEN**« command to enter KEYWORDS mode. Then we enter the corresponding KEYWORD and delete »**THEN**« manually. Admittedly, this is a bit of manual EDP, but that's how it works.

BYTES - B KEY

With this function, we can display the remaining memory space available for our BASIC program and its variables. This value is displayed quite unspectacularly after pressing »B« and then switches back to the »T« cursor.

COPY - C KEY

This copies a line area from our BASIC program to another position in the listing. This is sometimes very useful if you need the same functions at different points in the program (e.g. loop constructs).

After pressing »C«, we enter the first line of the area to be copied. This is followed by the last line to be copied and the line number to where everything is to be copied to. Of course, each entry is acknowledged with ENTER.

On the screen it will look something like this:

C COPY lines of your program
From line 1 To line 100
Insert After 600

The line area (here filled with exemplary values) is copied to the end of the memory, renumbered so that the lines start with 601 (in increments of one) and copied to the corresponding position in the listing. If ZXED has to renumber the rest of our existing program to make room for the lines to be inserted, the following message is displayed to let us know what ZXED has done (the values are based on the example above):

R RENUMBER LINE NUMBERS

From line 610 To line 9899
New Base 635
Increment 10

ZXED then explicitly confirms which lines it has inserted. This is done with the following message:

601 to line 634 inserted

If everything has worked, we see the message 0 OK.

Attention - no **GoTo** and **GoSub** references are adjusted in the copied area. This is also due to the fact that the program may have to be renumbered. For this reason, the old references remain here as a precaution.

DELETE - D KEY

Just as you can insert lines into the program with Copy, this function allows you to remove lines from it. Of course, the operation here is also very intuitive and is carried out as described below:

First, we press the corresponding key, i.e. »D«, and then enter the first line to be deleted. Then we enter the end of the area to be deleted, i.e. the line number up to which we want to delete. ZXED then deletes the entered area from our program listing and, at best, displays the message OK, which documents the successful processing. The line number displayed there is the last one deleted.

FIND - F KEY

This is particularly useful if you want to search for specific character strings in long and confusing listings. The function works in such a way that it outputs all corresponding program lines in which the character string you are looking for occurs.

We press the »F« key and then enter the character string we are looking for. This also works with KEYWORDS from BASIC as I have already explained above. Again, all lines containing the search term are output as well as all lines containing the searched string.

LINE - L KEY

Returns the address of a line. The command is simply executed by pressing the »L« key followed by ENTER. The result is the first character in this line.

MOVE - M KEY

This function is closely related to the COPY command, except that the corresponding lines are moved and not copied.

The necessary key is of course the »M« and otherwise everything works in the same way as the copy command. Nothing more needs to be said about operation at this point. The following is an example of the screen output, by way of explanation so to speak.

M MOVE lines of your program
From line 1 To line 100
Insert after 600
601 To line 635 inserted

APPEND - P KEY

This function is used to append commands to a defined line, which is of course particularly useful if you want to append something to the end of long program lines. This saves the otherwise somewhat cumbersome editing with the cursor keys, which can lead to errors in the worst case.

As you can see, the program deviates from the usual key assignment for this function, but this is of course due to the fact that the »A« key is already assigned to the ALTER command. After pressing the »P« key, we enter the text to be appended (KEYWORD analogous to »ALTER« and »FIND«). Then we have to tell the program to which line our text should be appended. We then enter this. ZXED then asks for the next line to which the text is to be appended. To get out of this loop and end appending, it is sufficient to enter a 0 as the line number.

RENUMBER - R KEY

This function allows us to renumber the listing. This is particularly useful if you need/want to insert additional lines into an existing program but there is no room between the line numbers. This can happen very quickly when programming, especially if you want to add certain functionalities afterwards. And it has certainly happened to one or the other and got them annoyed because a lot of manual work was required to correct the listing. I don't think there's any need to mention that this increases the probability of errors.

After pressing the »R« key, the program wants to know the first line from where the renumbering should start. Then the last corresponding line is also queried. You then have to tell the program the first line number of the program, followed by the increment. Then - again using an example - the screen may look like this:

R RENUMBER line numbers
From line 105 To line 396
New base 200
Increment 10

So far, this is a practical function, as it saves a lot of manual work. But the best thing about it is that all **GOTO**, **GOSUB**, **RESTORE**, **LIST**, **LLIST**, **RUN** and also **SAVE**... **LINE** references are adapted correctly, so that the program should then run properly/correctly again. Of course, as with many things in life, there is an exception to this. It does not work if calculated **GOTO** or **GOSUBS** occur, e.g. **GOSUB** f*10, but such a line is marked and the user has the option of deciding for himself whether adjustments are necessary or not. After successful execution, the first line after the renumbering is output as the line number.

SEQUENCE - S KEY

Anyone who enters many and long listings is often bothered by the need to prefix each program line with a unique line number. This function takes care of this. After pressing the »S« key, ZXED asks us for the start line number and the step size. ZXED then takes care of everything else automatically so that we can concentrate on entering the program code. Of course, the interpreter also checks here whether the syntax of the line entered is correct. If correct, the next line number is already at the bottom of the command line after pressing ENTER and is waiting for our BASIC code. Otherwise, everything is the same as with »normal« program input. Of course, you will eventually reach the end of your listing. But you can also switch off the default auto line number. To do this, delete the suggested line number using the familiar CAPS + »0« and enter **STOP**.

Of course, it also happens that we enter a program line syntactically incorrect. This is noticed by ZXED and the message **»C - NONSENSE IN BASIC«** is displayed. Now we can correct the line including the line number and - if we make another mistake - the error is marked with a "?". After the correction, we can use "CONTINUE" to resume the automatic line number specification. As in normal BASIC, lines with the same line number are always replaced by the one currently entered - we all know that. If we press **ENTER** immediately after the line number without having entered anything, ZXED deletes this line from the listing as far as it existed before and jumps to the next number according to our specification when calling the function. To skip a line without deleting it, it is sufficient to delete the line number and then press **ENTER**. A new line number is

then generated. This may sound a little complicated, but you have to see it to understand it.

VERIFY – V KEY

Used to display all changes made with ALTER on the screen or, in short form, just the number of lines changed.

Pressing the »V« key changes the current status of VERIFY, i.e. from OFF to ON and vice versa or, if VERIFY was previously deactivated, you can switch monitoring on with **VERIFY ON**.

So, that's the brief description of all the new functions that ZXED offers us. Admittedly not a sensation, but useful for BASIC programmers in some situations. Another very practical feature of this program is that it takes up very little of the already sparse memory. In the times when I worked a lot with BASIC programs, ZXED was always a useful companion. Especially if you wanted to integrate foreign program parts into your own, the RENUMBER was often the only way out without having to completely redesign the entire program. Unfortunately, this tool has faded into the background in recent times, so it was perhaps quite useful and helpful to become aware of its functionalities once again.

Finally, here is a brief overview of all the messages issued by ZXED:

- **0 OK**
  Successful processing
- **4 OUT OF MEMORY**
  Out of memory
- **9 STOP STATEMENT**
  ESC in the »SEQUENCE« function
- **A INVALID ARGUMENT**
  Number found in a string (in connection with ALTER)
- **B INTEGER OUT OF RANGE**
  Step size = 0 (for RENUMBER or SEQUENCE).
- **C NONSENSE in BASIC**
  String empty (FIND, ALTER) or source and target string identical. Also for syntax error during SEQUENCE.
- **G NO ROOM FOR LINE**
  see ENTER (CHR$ 13) normally deletes a line. Error message if this does not exist for any reason.
- **H STOP in INPUT**
  STOP was pressed when parameters were queried. CONTINUE resumes the process.
- **L BREAK into PROGRAM**
  BREAK button or SPACE pressed when the menu is displayed or the »T« cursor is active CONTINUE does not take you back to ZXED and you jump to the next line.
- **N STATEMENT LOST**
  A certain line was not found in the program. For example, you can use the command **DELETE** 100 to line 200 to delete all lines in the range even if 100 and 200 do not exist. For some functions, however, it is necessary for the specified line number to exist, e.g. for **COPY** or **MOVE**.
- **Q PARAMETER ERROR**
  Comes into play if a RENUMBER would overwrite certain existing line numbers; example: A renumber 100 to line 200 with a new start line 10 is entered although program lines already exist there.

And finally, a small note: if ZXED outputs a "Scroll?" and we press the »n« or **SPACE** key, the error message "D"

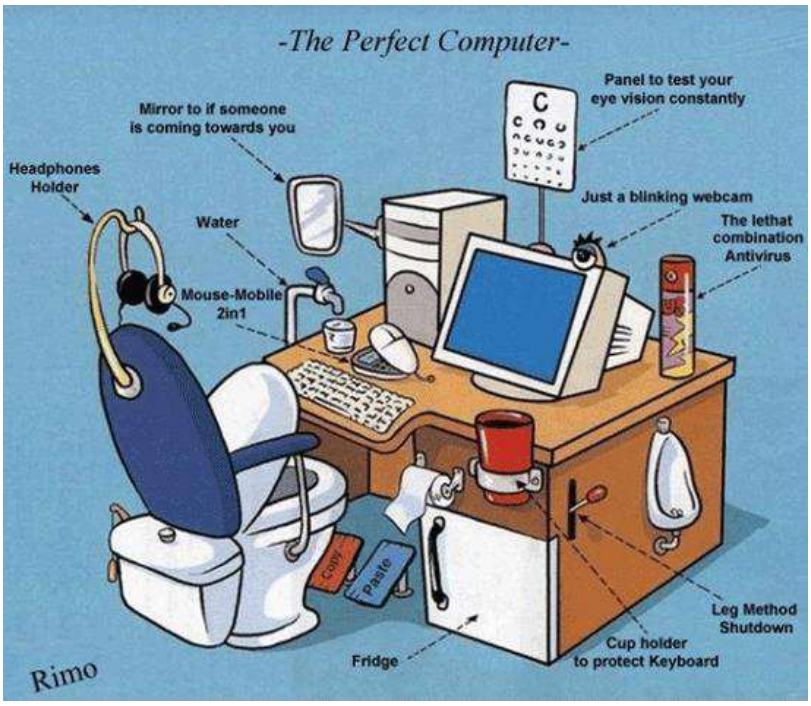
(see above) is displayed. If we now press »**CONTINUE**«, as we are used to from BASIC, the error message "5 OUT OF SCREEN" may appear. This can be avoided by entering PRINT: CONTINUE.

That's all the program functions that ZXED offers us. I hope I have been able to arouse the curiosity of some of you to try out "ZXED" for yourself. If you don't know the program, you can download it from WORLDOFSPECTRUM.

You can find the toolkit at

`https://worldofspectrum.net/item/0009025/`

Have fun testing it.



ADVENTURE CORNER

BY MIRON SCHMIDT

Hello dear Adventure friends!

I hope you had a great time with exciting games. This time I would like to take a brief look at the locations of adventure games.

With the very first adventure game set in the **"COLOSSAL CAVE",** the complex cave was immediately established as a location. Many games from the seventies and early eighties were slightly modified relatives of this game, and the famous **ZORK TRILOGY** from *INFOCOM* also set the entire **GREAT UNDERGROUND EMPIRE** in a huge cave. This was soon followed by castles (**SORCERER'S CASTLE, VOODOO CASTLE), spaceships (STARCROSS, BATTLESTAR)** and alien planets (**ALDEBARAN III, ESCAPE FROM TRAAM)**, but above all houses and islands repeatedly formed the backdrop for the adventure stories.

The first graphic adventure and also the first *SIERRA ON-LINE* game had **MYSTERY HOUSE** in its title in 1980, but *Greg Hassett's* **HOUSE OF SEVEN GABLES** (loosely based on the book by *Nathaniel Hawthorne*) and **MYSTERY MANSION** by *Bill Wolpert* were the first excursions into houses as early as 1978. *Islands* had quickly become a cliché, at least since *Scott Adams'* **PIRATE ADVENTURE**. And here, too, *Greg Hassett* brought another early example to the table with **ENCHANTED ISLAND**.

In my AdventureEcke debut in **SUC-SESSION 234** also featured an island, and today we visit another one as well as two houses before finally taking a sharp turn with a completely different adventure.

»TRISTAM ISLAND«

HUGO LABRANDE 2022

This game takes its setting very seriously indeed: right at the start, you'll find a sandy beach, scrub, boulders and a path into the forest - all essential set pieces of the island adventure.

However, it soon becomes clear that the game is divided into two parts: After the standard part, which also includes island-typical puzzles such as making a fire, fishing and creating an emergency shelter, a completely different kind of adventure begins. However, the motivation to complete the aforementioned tasks is a little forced, as if the author himself felt that he would otherwise have to leave his beautiful island paradise too quickly.

However, the long, atmospheric descriptions can put you at ease, especially as the tasks are not too complicated and are accompanied by a relaxed walk along the beach and through the forest. The game is also written in PunyInform, so it has a powerful parser that causes few problems in finding the right phrases.

Without giving too much away about the second part: It should quickly become clear that the game still has a few aces up its sleeve. This is especially true when it comes to playability: some elements will initially appear as annoying heirlooms from ancient game predecessors, but these disappear completely after completing the prologue.

Extensive material is included with the game download. However, unlike the postcard and the MI-5 report, it is strongly recommended that you do not open the game manual. Instead of a manual (which is also superfluous for experienced adventurers), it contains notes on the game that anticipate a few surprises.

Downloads are available in versions for over 30 different systems, including modern operating systems, home computers, pocket calculators and the Z-MACHINE format from **INFOCOM**, but also the **SPECTRUM +3** (for people who always have their magnifying glass to hand) and the **SPECTRUM NEXT**, at **ITCH.IO**:

https://hlabrande.itch.io/tristam-island

You can also order a physical version of some of these versions, which contains a rock sample, a poster and other tangible objects in addition to the extras already mentioned:

https://www.polyplay.xyz/Tristam-Island-ZX-Spectrum-3

»HAUNTED HOUSE«

PHILIP PERRIN 2023

The first house is a game in the classic style of the eighties. This is hardly surprising, as it is an extended version of the game of the same name by *Jenny Tyler*

and *Les Howarth* from the 1983 book ***WRITE* YOUR OWN ADVENTURE PROGRAMS FOR YOUR MICRO-COMPUTER.** The extensions also include a digitized cover picture, a wonderful beeper version of *Danse Macabre* and graphics for individual rooms. It has also been reprogrammed from the BASIC version.

Perrin went to great lengths to minimize problems with the game's display: All objects that can be interacted with are written in capital letters, and unusual commands are pointed out in the same way.

Basically, the game follows the rules of the haunted house, but is of course hardly able to scare (so that the slamming door or the freezing rocking chair, for example, go miserably nowhere), and the texts are too scarce for a seriously creepy atmosphere. The result is a very simple puzzle adventure with at least halfway vivid descriptions, but little atmosphere.

Fans of old SPECTRUM adventures may still like it, as the love for the game concept is always recognizable and the colourful room pictures are often pretty to look at.

This game can also be downloaded from ITCH.IO:

https://bwganblack.itch.io/haunted-house

As a nice addition, the game is also included as a WAV file, so that it is possible to record a cassette for the real Spectrum.

»THE GHOSTS OF BLACKWOOD MANOR«
STEFAN VOGT 2023

The second game set in a house has been announced for some time and finally came out last year, including again in a physical version of **POLYPLAY**, which like **TRISTAM ISLAND** is very reminiscent of the late **INFOCOM** phase - and this game was also written in *PunyInform* and is available for several systems.

The author *Stefan Vogt* will be no stranger to many of the people reading here, as he has already written several adventure games (which were also praised for their outstanding graphics) and has appeared several times as an expert on adventure games.

The game takes its time and features extensive descriptions from which you gradually learn more about the surroundings and ultimately the background. The story that unfolds is a little meandering, but remains gripping and interesting simply because of the linguistic presentation. Above all, *Vogt* handles the chronology well and repeatedly works with the fact that the story takes place in 1986. On the one hand, he is able to point out this "modern" component with a wink, for example when he raves about the brand new **AMIGA**, but on the other hand he also creates interesting contrasts, for example when a then-current album by **NEW MODEL ARMY** is played in the time-honored mansion.

Apart from all the running back and forth, especially in the middle section, you experience a well-told story in which the interactive elements are more a means to an end than an integral part of the narrative. Many of the puzzles are not necessarily conclusive, but rather follow the pattern of "what else is this supposed to be for" - but without ever becoming particularly annoying.

Anyone who doesn't mind lengthy texts and likes to experience how a story slowly unfolds will certainly not be disappointed with **BLACKWOOD MANOR**.

Download and order link to the physical version:

https://8bitgames.itch.io/ghosts

»BILLIE NIGHT«
FRANK KAPILLA 2023

The last game for this edition is clearly different and takes place neither in a house nor on an island, but in a movie theatre and the places nearby. You take on the role of *Billie*, who has just come out of a horror movie and now wants to spend her evening with her boyfriend *Michael* (the game is dedicated to an unnamed *"King of pop").*

While the texts are not very polished (and also contain some minor grammatical errors), the graphics quickly create a suitable atmosphere and the dark alleyways in particular look convincingly creepy.

Basically, you play a somewhat convoluted version of the **THRILLER** music video, in which you run around a bit more. The game is very short, but you have to keep working your way through menus (it's not a normal text adventure, but a **"CHOOSE YOUR OWN PATH"** game where you select actions) and then start over if you get something wrong.

The author of the game, *Fran Kapilla*, who was born in Spain in 1980, is a full-time filmmaker and would therefore have fitted in well with the theme of the last

issue. In addition to ten feature films, he has also written a good dozen games, some in Spanish, some in English and often in both language versions.

Anyone who can imagine spending a somewhat grueling hour and a half searching for the right path in order to be rewarded with pretty pictures can download the game here:

https://sequentia-soft.itch.io/billie-night

And that's it for the adventure corner. As always, I can be reached for feedback or questions via the SUCSESSION or directly by e-mail to vintrospektiv@gmail.com. See you next time!

»THE FEASIBILITY EXPERIMENT«

BRIAN HOWARTH UND WHERNER BARNES
1983 - DIGITAL FANTASIA

BY HARALD LACK

Solution: © 2022 Harald Lack
Hardware used: PC with X128 emulator
Published in the Spectrum User Club

Hello everyone,
Today I would like to introduce you to another member of the »MYSTERIOUS ADVENTURES« series, namely »THE FEASIBILITY EXPERIMENT« by BRIAN HOWARTH and WHERNER BARNES. Like the other representatives of this series, this adventure was also published by Digital Fantasia in 1983. It is again a representative of the easier games to solve and therefore fits in seamlessly with its predecessors. The background story is also short and sweet. How could it be otherwise, the history of a civilization is once again at stake and so, as the last representative of a vanished race, we have been chosen as the ultimate representative to turn the tide after all. To achieve our goal, we have to find 10 valuable items and place them in the right place. It doesn't sound too complicated at first, and ultimately it isn't. You just have to read carefully and combine well, then it's no problem. One problem (not only for the planner) is the labyrinthine tunnel system, in which it is all too easy to lose your bearings. As the location descriptions do not usually differ, I have "counted up" the locations again and labeled them accordingly. I don't necessarily want to rely on the accuracy of the plan here, but I have nevertheless tried to bring a certain logic - depending on the solution - into the plan. Please decide for yourself whether I have succeeded in the end. The step-by-step solution that I offer below runs over a total of 55 locations, of course there are other rooms that are not listed there, but these are not necessary for this solution. But now I have written enough about the history of the program and the attached map, so I would like to list the locations listed there and the items and directions in them. These are as follows:

01) I feel a surge of strange power (1) / vague shapes
02) In a viewing room / window
03) In a weapons room / short sword
04) In a tunnel (1) / large ruby
05) In a tunnel (2)
06) In a tunnel (3)
07) In a tunnel (4)
08) In a tunnel (5)
09) I feel a surge of strange power (2) / vague shapes
10) In a stone hut
11) In a stoneage village / huts
12) On a path
13) I feel a surge of strange power (3) / vague shapes
14) In a mine yard
15) At the pit head
16) In a mine cage / numbered buttons
17) In a passage
18) In an abandoned gallery / shovel
19) In a stone circle / stone slab, stone steps
20) On some old stone steps
21) In a rock hewn temple
22) By a rock altar / gauntlets, stone altar, crystal scimitar
23) In a tunnel (6)
24) In a tunnel (7)
25) In a tunnel (8)
26) In a tunnel (9)
27) In a castle courtyard / glowing brazier, (studded/open) door
28) On a glacier / ice cave
29) In an ice cave / ice tunnel
30) In an ice tunnel / cloth strip
31) In an ice vault / sign
32) On a grassy plain (1) / rocks, ornate dagger
33) On a grassy plain (2) / box of emeralds, iron key
34) In a straw hut / plaited rope
35) In a store room (1) / rusty lamp
36) In a kitchen / small can
37) In the mountains (1) / crevice, flint
38) In the mountains (2) / path
39) On a rocky path
40) At the lip of a chasm / charred tree, metal block
41) At the bottom of the chasm / dangling rope

42) In a warm cave / blackened skeleton, gold amulet
43) In a tunnel (10) / gladiator, black key
44) In a tunnel (11)
45) In a display room / guard, display cabinet, red diamond
46) In a store room (2) / ebony spear
47) In a tunnel (12)
48) In the gladiator´s room / leather shield
49) In an arena / ferocious lion
50) In a tunnel (13)
51) In the emperor´s box / emperor, imperial guard, ixion shield
52) In a lion´s cage / lions, ivory statuette
53) In a tunnel (14) / wooden grille
54) In a hot passage
55) In the dragon´s lair / fire breathing dragon, silver chalice

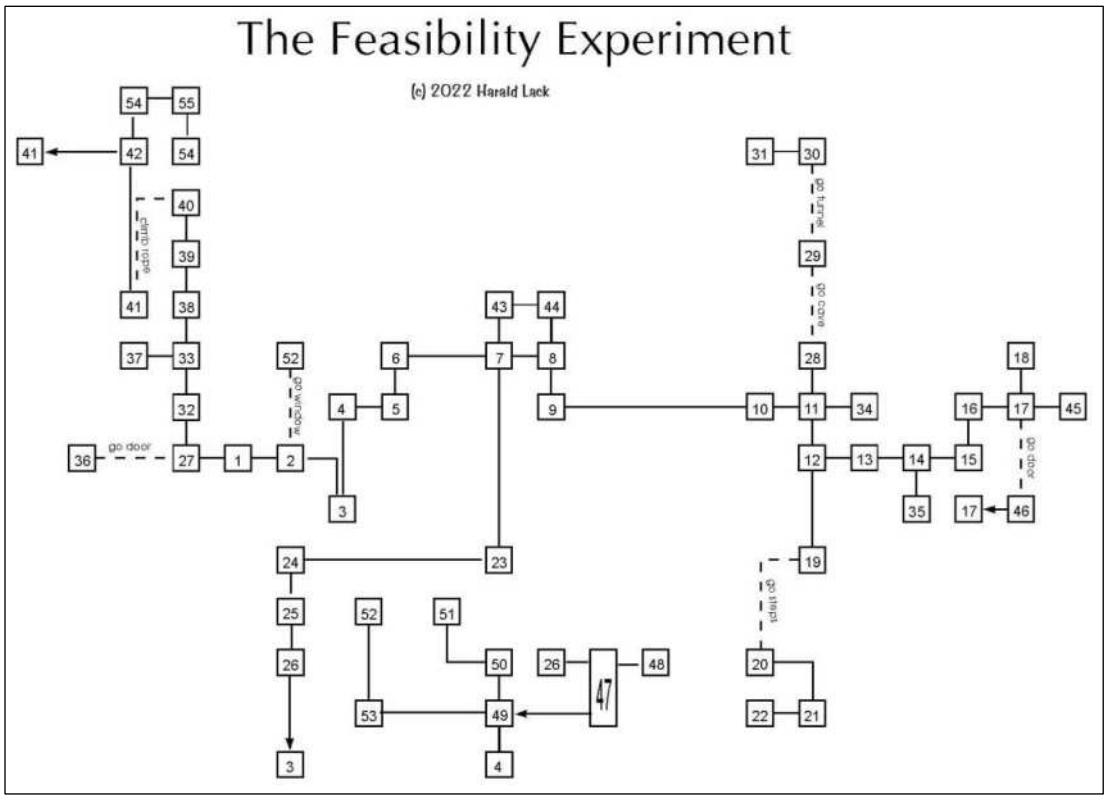
So much for the locations on the enclosed map. I would also like to point out that the items to be collected are always marked with asterisks in the program, which makes it easier to identify them. For the sake of completeness, I'll list them here anyway:

ruby, emeralds, diamond, amulet, dagger, statuette, ixion shileld, spear, scimitar, chalice

Below is the step-by-step solution to this adventure:

E, D, N, GET RUBY, E, N, E, E, S, E, E, S, E, E, E, N, LOOK, PRESS 2, E, N, GET SHOVEL, S, W, PRESS 1, S, W, W, W, S, DIG, WITH SHOVEL, MOVE SLAB, GO STEPS, D, W, GET GAUNTLETS, WEAR GAUNTLETS, E, U, U, N, N, W, W, N, W, S, W, S, S, S, U, W, W, GET BRAZIER, E, E, D, N, E, N, E, E, S, E, E, N, GO CAVE, DROP BRAZIER, WAIT, GET BRAZIER, GO TUNNEL, DROP BRAZIER, WAIT, W, READ SIGN, DROP GAUNTLETS, DROP RUBY, E, GET STRIP, S, S, S, W, W, N, W, S, W, S, S, S, U, W, W, N, N, DIG, WITH SHOVEL, DIG, WITH SHOVEL, GET KEY, GET EMERALDS, S, S, UNLOCK DOOR, DROP KEY, E, E, D, N, E, N, E, E, S, E, E, N, GO CAVE, GO TUNNEL, W, DROP EMERALDS, E, S, S, S, E, GET ROPE, W, S, E, E, S, GET LAMP, EXAMINE LAMP, FIX LAMP, N, W, W, N, W, W, N, W, S, W, S, S, S, U, W, W, GO DOOR, GET CAN, FILL LAMP, DROP CAN, E, N, N, W, EXAMINE CREVICE, GET FLINT, E, N, N, N, EXAMINE TREE, GET BLOCK, TIE ROPE, TO TREE, LIGHT LAMP, DROP BLOCK, DROP FLINT, CLIMB ROPE, N, EXAMINE SKELETON, GET AMULET, W, CLIMB ROPE, S, S, S, S, EXAMINE ROCKS, GET DAGGER, S, E, E, D, GET SWORD, N, E, N, E, N, KILL GLADIATOR (klappt nur mit dem Schwert), DIG, WITH SHOVEL, DROP SHOVEL, GET BLACK KEY, E, S, S, DROP SWORD, E, E, S, E, E, E, N, PRESS 4, E, E, KILL GUARD (mit dem Dolch), EXAMINE CABINET, GET DIAMOND, W, W, PRESS 5, E, UNLOCK DOOR (der schwarze Schlüssel kommt zum Einsatz), DROP BLACK KEY, GO DOOR, GET SPEAR, W, W, PRESS 1, S, DROP LAMP, W, W, W, S, GO STEPS, D, W, PRAY (wir müssen das Amulett und den Diamanten dabei haben), GET SCIMITAR, E, U, U, N, N, N, GO CAVE, GO TUNNEL, W, DROP DIAMOND, DROP AMULET, DROP DAGGER, E, S, S, S, W, W, N, W, S, W, S, S, E, E, GET SHIELD, W, W, KILL LION (wir müssen das lederne Schild und den Krummsäbel bei uns haben), DROP SHIELD, N, U, EXAMINE EMPEROR, GET IXION SHIELD, D, S, S, S, U, GO WINDOW, GET STATUETTE, S, E, S, S, U, W, W, N, N, N, N, N, CLIMB ROPE, N, N, E, KILL DRAGON (wir benötigen den Speer und das ixion Schild), GET CHALICE, S, S, W, CLIMB ROPE, S, S, S, S, S, E, E, D, N, E, N, E, E, S, E, E, N, GO CAVE, GO TUNNEL, W, DROP STATUETTE, DROP IXION SHIELD, DROP SPEAR, DROP SCIMITAR, DROP CHALICE, SCORE

In a completely unspectacular way, we learn that we have solved the adventure. Let's see what the next representative of the series brings. Let's be surprised. Until then, have fun replaying.
© Harald Lack



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